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ABSTRACT

The first section of the study on lowering the permanent rate of unemployment discusses the effects and limitations of increasing aggregate demand through fiscal and monetary policy and indicates the inability to achieve the desired level of unemployment simply by stimulating demand. Section 2 analyzes the characteristics and structure of our current unemployment. The specific problems of unemployment among young workers are examined in the third section, and a number of possible policies are suggested. Section 4 discusses the four major sources of unnecessarily high unemployment among adult workers and specific policies are suggested. Section 5 deals with the particular problem of improving the incentive effects of unemployment compensation. A brief summary section is followed by critical comments on the innovative and controversial policy suggestions offered in the study; five economists and statisticians with expertise in the area of employment and unemployment analysis were invited by the committee to comment. The author's reply is included. (Author/AJ)

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LOWERING THE PERMANENT RATE OF UNEMPLOYMENT

A STUDY

PREPARED FOR THE USE OF THE

JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

BY

MARTIN S. FELDSTEIN

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
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LETTERS OF TRANSMITTAL

SEPTEMBER 18, 1973.

To Members of the Joint Economic Committee:

Transmitted herewith is a study entitled "Lowering the Permanent Rate of Unemployment," by Professor Martin S. Feldstein of Harvard University, together with critiques of this study by five economists and statisticians with expertise in the area of employment and unemployment analysis. The Joint Economic Committee commissioned this study and invited the critical comments out of a conviction that research and discussion relating to the possibilities for lowering the rate of unemployment significantly below levels which traditionally have prevailed in the United States would make an important contribution to the execution of the mandate imposed on the committee by the Employment Act of 1946.

The views expressed in the paper and the comments are exclusively those of the authors and do not necessarily represent the views of the Joint Economic Committee, individual members thereof, or the committee staff.

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

SEPTEMBER 17, 1973.

Hon. WRIGHT PATMAN,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR MR. CHAIRMAN: Transmitted herewith is a study entitled "Lowering the Permanent Rate of Unemployment," together with invited comments and a reply. This study, which examines the possibilities for significantly reducing the rate of unemployment below the levels which have prevailed historically in the United States, was prepared by Martin S. Feldstein, professor of economics at Harvard University, in association with Data Resources, Inc., of Lexington, Mass. Critiques of the study have been prepared by R. A. Gordon of the University of California, Bennett Harrison of the Massachusetts Institute of Technology, Charles C. Holt of the Urban Institute, Hyman B. Kaitz, formerly Assistant Commissioner of the Bureau of Labor Statistics, and Frank C. Pierson of Swarthmore College.

The committee commissioned this study out of recognition of a need for far more research on the possibilities of reducing unemployment and out of conviction that the Employment Act of 1946 imposes on the committee the mandate to fully and continuously investigate this question. The study concludes that while fiscal and monetary policy alone cannot succeed in reducing unemployment to the levels this committee regards as desirable, additional policies designed to shorten job search,

improve worker training, and supplement the wages of unskilled and inexperienced young workers could make an important contribution to lessening unemployment. Because many of the specific policies proposed in this study are innovative and controversial, the committee invited critical comments by five economists and statisticians with particular expertise in the area of employment and unemployment analysis. These comments and the reply by Mr. Feldstein have permitted the assimilation into one volume of a range of viewpoints on several important aspects of employment policy, and the committee would like to express its gratitude to all the authors for their contributions to this volume.

The views expressed in this study and in the comments are those of the authors and do not necessarily represent the views of the committee, its individual members, or its staff.

JOHN R. STARK,
Executive Director, Joint Economic Committee.

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INTRODUCTION

A high level of unemployment is a persistent problem of the American economy. During the past 20 years, the average rate of unemployment exceeded 4.5 percent. In only 1 postwar year (1953) did unemployment drop below 3 percent. Although every segment of society is affected, some groups have unemployment rates that are several times as high as the national average. At the end of the first half of 1972, more than 9 percent of the nonwhite labor force was unemployed. Among men under 25, the unemployment rate was 11.5 percent. These high unemployment rates imply substantial personal and aggregate losses. Moreover, as I shall emphasize below, the American pattern of unemployment is a symptom of a more serious failure in the development and use of our Nation's manpower.

Unfortunately, there is no reason to expect that the next 20 years will be better than the last. Without substantial new policy initiatives, American unemployment rates will remain significantly higher than those that prevail in Western Europe and in most other industrial nations. Now that the unemployment rate is beginning to fall from the very high rates of 1970 and 1971, it is important to ask whether there is anything that can be done to lower permanently the average rate of unemployment to 3 percent or below.

That is the question posed by the Joint Economic Committee in commissioning the current study of the possibility of 2 percent unemployment. Although the current conclusions and proposals should be regarded as tentative, I believe that it is important to stimulate discussion about these particular issues at the current time.

My basic conclusions can be summarized briefly:

First, I believe that we probably can lower the permanent unemployment rate to a level substantially below the average of the postwar period. An average unemployment rate significantly less than 3 percent for those seeking permanent full-time employment, and possibly close to 2 percent, is a realistic goal for the next decade.

Second, the economy is not likely to achieve such a goal, or indeed to perform any better than it did in the past two decades, without significant changes in employment policy.

Third, expansionary macroeconomic policy cannot be relied upon to achieve the desired reduction in unemployment. Any possible increase in aggregate demand that does not have unacceptable effects on the rate of inflation would leave a high residue of unemployment. I believe that this is true even if one is very optimistic about the effect of increases in aggregate demand on inflation. The structure of unemployment and the current functioning of our labor markets imply a high overall rate of unemployment even when key unemployment rates

AUTHOR'S NOTE.—I am grateful for helpful discussions with E. Allison, R. Brinner, P. Doeringer, J. Duesenberry, J. Dunlop, O. Eckstein, J. Flemming, R. Freeman, R. Hall, and B. Wright. I am also indebted to Mr. Wright for assistance with the statistical calculations.

are extremely low. Better management of aggregate demand has a role to play, but it cannot do the entire job.

Fourth, lowering the overall rate of unemployment will require new types of policies aimed at increasing the stability of employment among young workers, at eliminating unnecessary seasonal and cyclical fluctuations in labor demand, and at increasing the speed with which the unemployed return to work. Several such policies are suggested below.

The first section discusses the effects and limitations of increasing aggregate demand through fiscal and monetary policy. The analysis presented there, based on simulations with an econometric model of the economy, indicates the inability to achieve the desired level of unemployment simply by stimulating demand. Section II explains some of the reason for this by analyzing the characteristics and structure of our current unemployment. The specific problems of unemployment among young workers are examined in the third section. A better understanding of the problems of this key group suggests a number of possible policies that could have important effects. Section IV discusses the four major sources of unnecesarily high unemployment among adult workers: the cyclical and seasonal instability of demand for labor; the weak job attachment among important subgroups of the population; the problem of those with severe physical and mental handicaps; and the long delays before some of the unemployed return to work. Specific policies are suggested for dealing with these separate problems. Section V deals with the particular problem of improving the incentive effects of unemployment compensation. There is then a brief summary section.

I. THE LIMITED EFFECTS OF INCREASING DEMAND

The basic framework of Keynesian economics, conditioned by the experience of the 1930's, has always emphasized the inadequacy of aggregate demand as the source of unemployment. While economists have debated the relative merits of different instruments of monetary and fiscal policy, it was generally, and is still quite widely, believed that unemployment can be reduced to very low frictional levels of less than 3 percent by sufficiently stimulating demand.

Phillips' (1958)[1] famous article warned economists that low rates of unemployment could only be achieved at the cost of high inflation. Specific estimates of the Phillips curve for the United States, beginning with a paper by Samuelson and Solow (1960), suggested that the United States faces a less favorable inflation-unemployment tradeoff than Britain. The high rates of inflation that accompanied falling unemployment in the late 1960's has again focused attention on the potential costs of increasing the pressure of demand.

Moreover, some economists now claim that the situation is worse than Phillips recognized. Friedman (1968), Phelps (1969) and others have argued that there is no long-run tradeoff between inflation and unemployment. Attempts to lower unemployment below some "natural" level by raising aggregate demand would only increase inflation without any effect on unemployment. According to this point of view, the Phillips curve is at most a short-run statistical phenomenon, an accidental byproduct of the fact that higher than average rates of inflation are generally associated with rising rates of inflation.

There is still a great deal of controversy about this issue. Although most empirical studies (e.g., Solow (1969) and Gordon (1970)) do not support Friedman's position, this may merely reflect an inadequately specified measure of expected inflation or an historical period in which high rates of inflation did not persist very long. Empirical work on this problem is likely to continue for some time. What might now be described as a "moderately optimistic" position, supported by both theoretical analysis (Tobin, 1972) and empirical research (Eckstein and Brinner, 1972), is that some tradeoff between inflation and unemployment exists as long as the rate of inflation is relatively low but that there is some rate of unemployment below which the economy cannot be moved by raising the rate of inflation. Eckstein and Brinner suggest that this occurs at an unemployment rate in the range of 4 to 4.5 percent.

It is clear that even this relatively optimistic view implies that the ability of macroeconomic policy to reduce unemployment is very limited. I prefer to avoid in this paper the intricate controversy about the precise form and dynamics of the Phillips relation. Rather I wish to consider the effects that further increases in aggregate demand

[1] Complete references to material cited in this way are provided at the end of the paper.

would have if the problem of inflation could somehow be avoided. More specifically, I will use an econometric model to study the effects of a decade of expansionary fiscal and monetary policy in an economy in which wages and prices are not permitted to respond to increases in demand. Although one possible interpretation of this would be as a description of an economy with a successful prices and incomes policy,[2] I prefer to regard the assumption that prices do not respond to demand only as an analytic device for examining issues that could not be considered if one began with the view that the permanent rate of unemployment could not be driven below 4 percent.

Within this new framework, three interesting questions can be asked. First, how would the unemployment rate of prime age males respond to different levels of fiscal stimulus? Second, what overall rate of unemployment would then prevail? Third, how would other characteristics of the economy—real income, investment, tax collections, profits, et cetera—respond to these higher levels of aggregate demand? The remainder of this section answers these questions. The results imply that even very large increases in Government spending, although capable of reducing certain key unemployment rates to very low levels, would leave the overall unemployment rate relatively high. Nevertheless, since even quite modest unemployment gains would be accompanied by substantial benefits in higher income, investment, et cetera, it is clear that such expansionary policies would be worth while if they were not in fact a source of substantial inflation.

The alternative policy simulations have been calculated using the Data Resources model of the U.S. economy. This is a large, quarterly econometric model constructed by several economists under the general direction of my colleague, Otto Eckstein.[3] Each of the equations of the model has been statistically estimated using observations from the early 1950's through the most recent available data. The model is continually being revised and updated. It is currently used to make detailed short-term 2-year and intermediate 10-year forecasts that are widely used in business and government.

It is of course important to recognize that, like any econometric forecasts, the current analysis reflects all the shortcomings of an historically estimated model. There is a further problem in the current case. The policy simulations require descriptions of an economy that is behaving in a very different context from anything that has actually been observed during the period that was used to estimate the model. The results must therefore be regarded more as illustrative of the general impact of policy than as precise forecasts.

Econometric forecasts reflect not only the structure of the model but also the assumed behavior of such exogenous variables as tax rates, Government spending, and population that are not determined by the model. The current policy simulations use essentially the same values for those exogenous variables as those incorporated in the July 1972 Data Resources 10-year projections. The values of the exogenous variables reflect the latest available information, official projections and

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[2] The general failure of such policies in Europe should warn against any optimism about the prospects for long-run success in the United States. For a recent survey of European experience, see Ulman and Flanagan (1971).

[3] For a general description of the model as well as specifications of each equation, see "The Data Resources Econometric Forecasting System: A Preliminary Account," December 1971.

judgments of the Data Resources professional staff. Instead of describing the specific assumptions about these variables,[4] it is easier and more meaningful to show the implications of these assumptions and the model itself by indicating the forecast values of some of the key endogenous variables. These are shown in table 1 for 1972, 1976, and 1980.

TABLE 1.—BASELINE PROJECTIONS FOR 1972, 1976, AND 1980

[Dollar amounts in billions]

Variable	1972	1976	1980
Unemployment rate (percent)	5.6	4.7	4.8
Consumer price deflator	138.8	154.5	169.8
Gross national product	$1,145.5	$1,547.1	$1,999.3
Gross national product in 1958 dollars	780.8	944.2	1,097.4
Federal Government expenditures	245.0	318.3	414.5
Federal Government purchases of goods and services	106.4	125.1	152.0
Federal Government receipts	224.6	297.7	397.1
Government surplus or deficit (−), NIA basis	−20.4	−20.6	−17.4
Consumer expenditures in 1958 dollars	513.8	623.2	727.4
Fixed private nonresidential investment in 1958 dollars	86.5	106.9	126.5

It is clear from these figures that the currently projected path of the economy involves a fall in the rate of unemployment from recent abnormal highs to slightly above the postwar average of 4.6 percent. It should be recalled that this unemployment rate is also just above the range at which, according to the model, further increases in aggregate demand raise inflation without lowering unemployment. The rise in the consumer price level from 138.8 in 1972, to 169.8 in 1980, implies a moderately high annual inflation rate of 2.5 percent. While I do not subscribe to all of the assumptions embodied in these forecasts, I accept these projections as a reasonable description of the future path of the economy and, in particular, as a baseline from which to consider the effects of alternative macroeconomic policies.

To study the effects of stimulating aggregate demand, I have considered three alternative increases in the level of Federal Government spending on nonmilitary goods and services.[5] The first simulation corresponds to adding $3 billion to the annual rate of nonmilitary Government spending in each year from now through 1980. In the second and third simulations, the increases in each year's spending are $5 billion and $10 billion. In each case, tax rates were assumed unchanged. As I explained above, the model of the economy's behavior has been modified to prevent wages and prices from rising in response to these increases in demand. The key wage and price variables—the index of compensation per man-hour, the GNP price deflator, and the consumption component of the price deflator—were constrained to follow the same time path that they would have without the additional Government spending. With these variables set exogenously, the other wages and prices followed approximately the same course that they would have without the increase in aggregate demand.[6]

[4] For a detailed description of the exogenous variables and individual equation adjustment factors, see "The Data Resources Review," No. 7, July 1972.

[5] The Data Resources model does not currently permit a more detailed specification of the form of Federal civilian spending.

[6] The Data Resources model was modified for all the simulations by assuming that the negative time trend term in the model's equation for the unemployment rate of married men does not persist past 1972. Failure to do this would further lower the married male unemployment rate in future years relative to the overall unemployment rate.

Table 2 shows the impact on unemployment rates of the alternative fiscal policies. It is clear that none of the increases in spending is sufficient to reduce the overall unemployment rate below 4 percent. To see why, it is useful to focus on Simulation III, a sustained increase of $10 billion in the annual rate of nonmilitary spending. The baseline projection—no additional Government spending—indicates a fall in the key unemployment rate for white males 20 years old and over from the current cyclically high level of 3.6 percent to 2.9 percent in 1980. With a $10 billion annual increase in Government spending, that unemployment rate is driven down to 2.5 percent. Similarly, while the baseline projection indicates that married men would still have an unemployment rate of 1.9 percent at the end of the decade, the additional fiscal stimulus yields a rate of 1.8 percent.

TABLE 2.—EFFECTS ON UNEMPLOYMENT OF INCREASED FEDERAL GOVERNMENT SPENDING[1]

[Dollars in billions]

		Policy simulation—		
	Baseline	I	II	III
Annual increase in Federal nonmilitary spending	0	$3.0	$5.0	$10.0
Unemployment rate for males, white, aged 20 plus:				
1972	3.6	3.6	3.5	3.4
1976	2.8	2.7	2.6	2.4
1980	2.9	2.8	2.8	2.5
Unemployment rate for married men:				
1972	2.9	2.8	2.8	2.7
1976	1.9	1.9	1.9	1.7
1980	1.9	2.0	2.0	1.8
Overall unemployment rate:				
1972	5.6	5.5	5.5	5.3
1976	4.7	4.5	4.4	4.1
1980	4.8	4.6	4.5	4.3

[1] See text for assumptions.

Such levels for these two key unemployment rates represent a very tight labor market. In only 5 years during the postwar period did the married male unemployment rate actually fall below 1.8 percent. The rate for white men 20 years old and over only dropped below 2 percent briefly during the inflationary boom at the end of the last decade. Yet the relatively tight labor market conditions that would be produced by a $10 billion increase in Government spending are insufficient to bring the overall unemployment down to even 4 percent by the end of the current decade.

The model implies that the structure of unemployment is such that an undesirably high overall rate of unemployment is consistent with very low rates for prime age men.[7] The next sections of the paper will analyze the specific features of the structure of unemployment that

[7] The Data Resources model and other econometric models use some form of "Okun's Law" to relate aggregate demand and unemployment. This may cause an underestimate of the effect of very large increases in demand on unemployment if the true relation is different at low rates of unemployment than in the range of historical observations. It need not, however, affect the relation among unemployment rates. The detailed evidence presented below supports these inferences. Of course, all of the forecasts of unemployment rates and other economic magnitudes assume that the basic structure of the economy is unchanged. The specific policies suggested in sections III through V are designed to alter the current structure.

prevent the economy from achieving any desired unemployment rate by a sufficient increase in demand. First, however, it is worth examining some of the other effects of an expansionary fiscal policy. The inability to achieve a very low unemployment rate should not obscure the very important real benefits that would follow from a significant expansion of the economy if that could somehow be done without exacerbating the problem of inflation.

Table 3 shows the effects of a sustained $10 billion increase in Government spending on a number of key economic magnitudes in 1980. The 0.5 percentage point fall in the overall unemployment rate—from 4.8 percent to 4.3 percent—is associated with an increase in GNP of about 1.3 percent. The proportional increases in disposable income and consumer expenditure are also of this size. Investment and corporate profits rise somewhat more. Federal Government receipts rise faster than GNP but less than the increase in spending. The deficit rises $3.1 billion because the higher level of Government spending is only partly offset by the increased tax collections that follow from a larger GNP.

TABLE 3.—EFFECTS OF A SUSTAINED $10,000,000,000 INCREASE IN FEDERAL GOVERNMENT SPENDING

[Dollar amounts in billions]

Variable	Predicted values for 1980		Percentage change
	Baseline projection	Policy simulation III	
Gross national product	$1,999.3	$2,025.4	+1.31
Personal disposable income	1,341.8	1,359.5	+1.32
Consumer expenditure	1,234.9	1,252.4	+1.42
Fixed private nonresidential investment	207.3	213.0	+2.72
Corporate profits after tax	92.9	95.1	+2.33
Dividends	46.7	47.2	+1.12
Corporation tax accruals	72.3	73.5	+1.76
Federal Government receipts	397.1	404.0	+1.74
Government surplus or deficit (−), NIA	−17.4	−20.5	+17.90
Federal Reserve Board index of industrial production	168.1	172.5	+2.63
Unemployment rate (percent)	4.8	4.3	−9.17

Even if prices and wages do not respond to an economic expansion, the effects of additional Government spending are limited by the economy's automatic dampening mechanisms. The fiscal stimulus increases the net demand for funds, decreases overall liquidity and raises all interest rates. Because higher interest rates reduce business investment and residential construction, the total impact of additional Government spending is reduced. The increase in imports and the rise in tax receipts that also accompany any expansion further reduce the fiscal multiplier. In order to examine the effects on unemployment of a much larger rise in aggregate demand, the three fiscal experiments described above were repeated with the additional assumption of accommodating monetary and import policies. Since the specific channels of monetary policy are not of particular interest in the current context, accommodating monetary policy was introduced simply by constraining the interest rates to the path projected in the absence of additional Government spending. Imports were also set exogenously at the originally projected values.

These changes in the basic specification of the model have an important effect on the economy's projected response to fiscal policy. Treat-

ing interest rates and imports as exogenous greatly increases the GNP expenditure multiplier. The effect is so large that, as will be seen below, the model indicates that the economy could not adjust to a sustained $10 billion increase in the annual rate of Government spending; aggregate demand is so increased that the economy's capacity and manpower are insufficient.

The increase in the expenditure multiplier does not change the basic conclusion: Government spending can increase aggregate demand but a large increase in aggregate demand has only a small effect on overall unemployment. Table 4 shows the impact on unemployment rates of the alternative fiscal policies with exogenous interest rates and imports. It is best to begin by examining Simulation V, a sustained increase of $5 billion in the annual rate of nonmilitary spending. The key unemployment rates are driven down to 1.6 percent for white males aged 20 plus and to a 0.4 percent for married men. Such an extremely tight labor market has never been experienced in the postwar period; the married male unemployment rate never fell as low as 1 percent and the rate for mature white men never dropped below 2 percent for more than a few months. Yet even these very tight labor market conditions only bring the overall rate of unemployment down to 2.5 percent.

TABLE 4.—EFFECTS ON UNEMPLOYMENT OF INCREASED FEDERAL GOVERNMENT SPENDING WITH EXOGENOUS INTEREST RATES AND IMPORTS

[Dollars in billions]

	Baseline	Policy simulation—		
		IV	V	VI
Annual increase in Federal nonmilitary spending	0	$3.0	$5.0	$10.0
Unemployment rate for males, white, age 20 plus:				
1972	3.6	3.5	3.5	3.3
1976	2.8	2.4	2.2	1.5
1980	2.9	2.3	1.6	(1)
Unemployment rate for married men:				
1972	2.9	2.8	2.7	2.6
1976	1.9	1.7	1.4	.4
1980	1.9	1.5	.4	(1)
Overall unemployment rate:				
1972	5.6	5.5	5.5	5.3
1976	4.7	4.2	3.8	2.6
1980	4.8	3.8	2.5	(1)

[1] Economy cannot sustain increased demand until 1980; see text.

The conclusion about the limited ability of increased demand to lower unemployment is shown even more strongly by Simulation VI. The model indicates that a $10 billion sustained increase in Government spending rapidly depresses prime age male unemployment rates to levels far below any historical experience. Nevertheless, the overall unemployment rate remains at 2.6 percent. Moreover, even with problems of inflation and the balance of payments artificially assumed away, the model indicates that a $10 billion increase cannot be sustained indefinitely. The simulation implies that the economy cannot absorb the expanded demand beyond 1976 and ceases to provide any results after that date.

As a check on these model simulation results, I have reestimated the relation between the overall unemployment rate and the rate for males

over 24 years old using seasonally adjusted quarterly data for the period from 1954:1 through 1972:2. The statistical estimates are shown in equation 1.1:

$$(1.1) \qquad RU_t = \underset{(0.15)}{2.08} + \underset{(0.04)}{0.85}\ RUM\ 25+_t, \qquad R^2 = 0.84$$

Where RU_t is the overall unemployment rate at time t and RUM 25+, is the concurrent unemployment rate for males at least 25 years old. The parameter values imply that even if males over 25 enjoyed an unemployment rate of only 1.5 percent, the overall unemployment rate would be approximately 3.4 percent. Since RUM 25+ has never reached 1.5 percent in the postwar period, this equation supports the view that tightening the primary labor market will not bring the overall unemployment rate close to 2 percent.

Before turning to a detailed analysis of the structural features of the economy that currently keep the unemployment rate from falling sufficiently as demand increases, it is interesting to compare the general effects of a $3 billion expenditure increase that is supported by fully accommodating monetary and import policies with the corresponding effects of the $10 billion expenditure increase with endogenous interest rates and imports. Table 5 presents the relevant comparisons for Simulations III and IV. It is clear that the accommodating monetary and import policies substantially increase the long-run expenditure multiplier. The $3 billion expenditure increase with fixed interest rates and imports has a larger effect than the $10 billion expenditure increase when interest rates and imports are allowed to rise. The difference in the behavior of interest rates is particularly important for the volume of investment. The larger GNP increase raises Government receipts by $12.6 billion above the baseline projection of $397.1. This reduces the overall deficit by $9.6 billion in contrast to Simulation III in which the deficit rises by $3.1 billion.

It is important to be very clear about the meaning of estimates of the type presented in table 5. First, these calculations are based on the assumption that aggregate demand can be expanded without inducing an accelerating rate of inflation. In fact, the overall unemployment rate of 3.8 percent lies below the range within which the Data Resources model indicates that the Phillips curve becomes vertical; that is below the range in which increased demand begins to add to inflation without lowering the unemployment rate. Second, the very substantial multipliers and the net decrease in the deficit in Simulation IV reflect the assumption that the expansionary fiscal policy does not raise prices, interest rates or imports. Third, the income gains should not be interpreted as the results of the fall in the unemployment rate to 3.8 percent. If policies other than an increase in aggregate demand were used to lower unemployment, the magnitude and pattern of real economic gains would be quite different. The gains shown in table 5 are associated with those unemployment rates precisely because an increase in demand is the only policy used to lower unemployment. The use of direct employment policies, especially public employment programs, would have a much smaller impact on aggregate output. While this would reduce the size of the benefits distributed throughout the economy, it would also limit the inflationary effect of the lower unemployment.

TABLE 5.—COMPARISON OF THE EFFECTS OF A $10,000,000,000 INCREASE IN FEDERAL SPENDING AND A $3,000,000,000 INCREASE WITH EXOGENOUS INTEREST RATES AND IMPORTS[1]

[Dollar amounts in billions]

Variable	Predicted values for 1980		Percentage difference
	Policy simulation III	Policy simulation IV	
Gross national product	$2,025.4	$2,050.7	+1.24
Personal disposable income	1,359.5	1,372.6	+.96
Consumer expenditure	1,252.4	1,265.4	+1.03
Fixed private nonresidential investment	213.0	220.5	+3.52
Corporate profits after tax	95.1	98.7	+3.78
Dividends	47.2	47.9	+1.48
Corporation tax accruals	73.5	75.7	+2.99
Federal Government receipts	404.0	409.7	+1.41
Government surplus or deficit (—), NIA	−20.5	−7.7	−62.44
Federal Reserve Board index of industrial production	172.5	178.0	+3.18
Unemployment rate (percent)	4.3	3.8	−11.63

[1] Simulation III: a $10,000,000,000 increase in Government spending; simulation IV: a $3,000,000,000 increase in Government spending with exogenous interest rates and exports.

II. THE STRUCTURE OF UNEMPLOYMENT

Most macroeconomic anaiyses of unemployment are based on ideas about the causes and structure of unemployment that are inappropriate and out of date. The conventional view of postwar unemployment might be described as follows: "The growth of demand for goods and services does not keep pace with the expansion of the labor force and the rise in output per man. Firms therefore lay off employees and fail to hire new members of the labor force at a sufficient rate. The result is a pool of potential workers who are unable to find jobs. Only policies to increase the growth of demand can create the jobs needed to absorb the unemployed."

This picture of a hard core of unemployed persons unable to find jobs is an inaccurate description of our economy and a misleading basis for policy. A more accurate description is an active labor market in which almost everyone who is out of work can find his usual type of job in a relatively short time. The problem is not that these jobs are unavailable but that they are unattractive. Much of the unemployment and even more of the lost manpower occurs among individuals who find that the available jobs are neither appealing in themselves nor rewarding as pathways to better jobs in the future. For such individuals, job attachment is weak, quitting is common and periods without work or active job seeking are frequent. The major problem to be dealt with is not a chronic aggregate shortage of jobs but the instability of individual employment. Decreasing the overall rate of unemployment requires not merely more jobs but new incentives to encourage those who are out of work to seek employment more actively and those who are employed to remain at work. As I shall explain below, an important part of these incentives is a change in the kinds of jobs that are available.

It is difficult to replace our old notions about demand determined unemployment by this new view. Let me therefore describe in more detail some of the characteristics of American unemployment during the past decade. I will begin with the experience of the total labor force and then consider differences among demographic groups.[1]

First, the duration of unemployment is quite short. Even in a year like 1971 with a very high unemployment rate, 45 percent of those unemployed had been out of work for less than 5 weeks. In 1969, this proportion was almost 58 percent. Similarly, very few are without jobs for as long as 27 weeks; in 1969 this was 4.7 percent and in 1971 it was 10.4 percent.

Second, job losses account for less than half of total unemployment. In 1971, only 46 percent of the unemployed had lost their previous jobs. In the more favorable market conditions of 1969, this proportion

[1] For additional evidence supporting this view of unemployment, see R. Hall (1970).

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was only 36 percent.[2] The remainder are those who voluntarily left their last jobs, are reentering the labor force or never worked before. In 1969, with an overall unemployment rate of 3.5 percent, job loss contributed only 1.2 percent.

Third, the turnover of jobs is extremely high. Data collected from manufacturing establishments show that total accessions and separations have each exceeded 4 percent of the labor force per month since 1960. Moreover, the number of quits has consistently exceeded layoffs during the past 5 years. Even with the high unemployment of 1971, more workers quit manufacturing jobs than were laid off. Many layoffs are both temporary and brief; in 1971, firms were rehiring about 85 percent of the workers that they had previously laid off.

A comparison of these figures with corresponding data for Great Britain indicates that they achieve a generally lower unemployment rate partly by having a very different structure of unemployment.[3] During the 1960's, Britain's average unemployment rate—as adjusted by the U.S. Department of Labor to U.S. concepts—was only 2.7 percent.[4] The structure of British unemployment corresponds more closely to the traditional picture of cyclically inadequate demand, chronic structural unemployment in particular regions, and a very low level of frictional job search. Despite the lower overall unemployment rate, British durations of unemployment are much longer. While 13.6 percent of unemployed men were out of work for 27 weeks or more in the United States in 1971, in Britain the corresponding figure was 23.8 percent in a recent period of high unemployment (April 1969). Similarly, while only five-eighths of American unemployed men were out more than 5 weeks, in Britain the same fraction of men were out more than 8 weeks. This longer duration is compatible with a much lower overall unemployment rate only because many fewer men become unemployed. One indication of this is that British turnover rates are approximately half of U.S. levels. Britain achieves a low unemployment rate by completely avoiding much of the short-term unemployment that prevails in the United States. Some of the specific ways in which this occurs will be examined below.

Perhaps the most important characteristic of our current unemployment problem is the differences in unemployment experience among demographic groups. The unemployment rates in certain groups are not only very high but are also quite unresponsive to changes in the aggregate demand for labor. It is this that explains why the simulations presented in the last section showed that fiscal policies that dras-

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[2] These figures may overstate the contribution of job loss to unemployment. Since job losers have somewhat longer durations of unemployment, the proportion of unemployment spells due to job loss is less than the proportion of unemployed days cited above.

[3] A study of the British experience is particularly useful because Britain, unlike some other European countries, does not maintain full employment for its own labor force by permitting temporary immigration of foreign laborers. The agricultural sector in Britain is also small so that, unlike other European countries, unemployment is not dampened by shifts from industry to agriculture.

[4] A comparison based on the British 1966 Census suggests that the official correction is too small and that the British unemployment rate, on American definitions, was approximately 3.1 percent.

tically cut the unemployment rate of mature white males would still leave a high overall unemployment rate.

To study these differences I have estimated the relation between the unemployment rate in each demographic group and the concurrent unemployment rate for males over 24 years of age. This rate for mature men provides one of the best measures of cyclical variation in labor market pressure. Equation 2.1, for example, relates the seasonally adjusted quarterly unemployment rate for teenage males (RUM 16–19) to the mature male rate (RUM 25+):

$$(2.1) \qquad RUM\ 16\text{–}19 = \underset{(0.62)}{9.22} + \underset{(0.17)}{1.45}\ RUM\ 25+$$

$$\bar{R}^2 = 0.49 \quad (1954{:}1 \text{ to } 1972{:}2)$$

The coefficient of RUM 25+ indicates that a change of 1 percent in the unemployment rate of mature men is associated with a 1.45 percent change in the teenage male unemployment rate. A change in aggregate demand therefore has a greater absolute effect on the teenage unemployment rate than on the rate for mature men. Nevertheless, variations in aggregate demand account for a relatively small fraction of the high level of teenage male unemployment. This is shown by the large constant term (9.22). Even if the mature male rate was depressed to 1.5 percent—below the level reached at any time in the postwar period—the equation implies that the male teenage rate would be 11.4 percent. Although the absolute sensitivity of male teenage unemployment to aggregate demand is a serious problem, it is the very high level of the cyclical troughs that prevents macroeconomic policy from reducing the overall unemployment rate to a level of 2 to 3 percent.

Table 6 summarizes the estimated equations linking the unemployment rates for major demographic groups to the rate for mature men.[8] Columns 6 and 7 compare the 1971 unemployment rate for each group with the rate that the equation implies would prevail in an extremely tight labor market in which the mature male rate was 1.5 percent. Each of the eight equations conveys an interesting story about the differences in labor force experience among demographic groups. Equation 2.2 implies that teenage females also have a very high unemployment rate independent of labor market conditions. With the mature male rate at 1.5 percent, teenage females would still have an unemployment rate over 13 percent. The very low and statistically insignificant coefficient of RUM 25+ in this equation also suggests that the female teenage unemployment rate is almost completely unaffected by aggregate demand. Indeed a comparison of equations 2.1 through 2.4 indicates that the only teenage group whose unemployment is influenced to a significant extent by market tightness are white males.

[8] All of these equations are linear. Although it is possible that these relations change substantially at very low rates of unemployment, preliminary examination of this issue does not suggest important nonlinearities. Further analysis of this question can be found in Martin Feldstein and Brian Wright, "Nonlinearities in the Structure of Unemployment and Employment," mimeographed, 1973.

TABLE 6.—DIFFERENCES IN UNEMPLOYMENT EXPERIENCE AMONG DEMOGRAPHIC GROUPS

Equation	Demographic group	Constant term	Coefficient of RUM 25+	$\bar{R}^2$	Unemployment rate, 1971	Unemployment rate at RUM 25+=1.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2.1	Males 16 to 19	9.22 (0.62)	1.45 (0.17)	0.492	16.7	11.4
2.2	Females 16 to 19	13.28 (.88)	.26 (.24)	.002	17.4	13.7
2.3	Whites 16 to 19	9.28 (.60)	1.03 (.17)	.336	15.2	10.8
2.4	Nonwhites 16 to 19	24.13 (1.89)	.26 (.52)	−.010	31.8	24.5
2.5	Males, white 20+	.32 (.08)	.92 (.02)	.960	4.0	1.7
2.6	Males, nonwhite, 20+	−.22 (.21)	2.33 (.58)	.956	7.3	3.3
2.7	Females, white, 20+	2.35 (.15)	.59 (.04)	.743	5.3	3.2
2.8	Females, nonwhite 20+	4.62 (.30)	.99 (.08)	.660	8.7	6.1

NOTE.—Estimates are for 1957:1 through 1972:2. Standard errors are shown in parentheses. See text for further details.

Equation 2.6 shows that although the nonwhite adult male unemployment rate has also been quite high, it behaves very differently from the rates for teenagers and women. The constant term in this equation is small and negative. Nonwhite men are very much more sensitive to aggregate demand than other groups in the labor force. Their unemployment rate parallels that for white men but at a much higher level. The result is that a 1.5 percent level for RUM 25+ leaves a 3.3 percent rate for this group.

For both white and nonwhite women, there are substantial constant terms and significant sensitivity to RUM 25+. Nonwhite women are more sensitive to labor market conditions. Their unemployment changes at the same rate as that of mature men.

The simple structure of these equations may of course produce misleading results. Changes in the unemployment rates of individual demographic groups during the past 20 years have reflected not only aggregate labor market conditions but also the complex effects of the changing demographic structure of the population, the structure of relative wage rates, the increase in school attendance, variations in the size of the Armed Forces, increased labor force participation of married women, the relative increase in the minimum wage, et cetera. An analysis of the likely effects of these factors is beyond the current study. The rapid increase in the proportion of teenagers in the population has however been identified as an important influence. The postwar baby boom reached labor force age in the early 1960's. Statistical estimates suggest that this raised teenage unemployment rates in the sixties and thus prevented teenagers from sharing in the general fall in unemployment rates. Equation 2.9 demonstrates this result for male teenagers:

$$(2.9)\quad RUM\ 16\text{–}19 = \underset{(1.49)}{-7.63} + \underset{(0.13)}{2.35}\ (RUM\ 25+) + \underset{(12.6)}{146.5}\ \frac{Pop.\ 16\text{–}19}{Pop.\ 16+}$$

$$\bar{R}^2 = 0.824$$

where (POP 16–19/POP 16+) is the proportion of the population over age 15 that is between 16 and 19 years old. The equation implies that the rise in this proportion from .0875 in 1961 to .1083 in 1972, increased the unemployment rate for male teenagers by 3.05 percentage points. Note that the effect of allowing for this demographic trend is a substantial increase in the implied responsiveness of the teenage

rate to cyclical conditions. Similar effects are observed when this demographic variable is added to the equations for other teenage groups (2.2 through 2.4). However, because of the trend-like behavior of this demographic variable during the past decade, it is difficult to judge whether its implied impact is real or only a statistical artifact. Only after the current demographic trend for this age group turns will it be possible to resolve this. Nevertheless, even if equation 2.9 is accepted as a more accurate picture than 2.2, the basic conclusion about the effect of increasing aggregate demand is unchanged. Equation 2.9 implies that reducing RUM 25+ to 1.5 percent would yield a male teenage unemployment rate of 11.6 percent with the current demographic structure [(POP 16–19/POP 16+) =0.108].

The equations reported in table 6 indicate that overall unemployment would remain high even in a very tight labor market but do not explain why individual unemployment rates behave so differently. Some understanding of this at a relatively crude empirical level can be obtained by examining the proportions of the unemployed in different demographic groups who are job leavers, job losers, new entrants, and reentrants. Table 7 presents comparative data for a high unemployment year 1971 and a low unemployment year 1969.

TABLE 7.—COMPOSITION OF UNEMPLOYMENT RATES, 1969 AND 1971

	Male, 20+		Female, 20+		Teenager 16 to 19		White		Nonwhite	
Reason for unemployment	1969	1971	1969	1971	1969	1971	1969	1971	1969	1971
Job loser rate	1.2	2.9	1.2	2.5	1.8	3.1	1.1	2.5	2.3	4.2
Job leave rate	.4	.5	.6	.8	1.5	1.6	.5	.6	.9	1.1
Reentrant rate	.5	.9	1.7	2.3	4.2	5.5	1.1	1.6	2.2	3.1
New entrant rate	.1	.1	.2	.2	4.8	6.7	.4	.7	1.0	1.5
Total	2.1	4.4	3.7	5.7	12.2	16.9	3.1	5.4	6.4	9.9

The primary difference between the structure of unemployment for mature males and females is the higher unemployment rate for women among those who are reentrants to the labor force. Unfortunately, the term "reentrant" is unclear. It includes not only women who return to the labor force after caring for a family for a number of years but also those who are seeking work after a brief period of voluntary withdrawal from the labor force. This component of the higher unemployment rate of women probably represents both the natural frictional unemployment at a second entry into the labor market and the result of a weaker attachment to employment of some women who move temporarily in and out of the labor force. The higher rate of women's unemployment due to job leaving provides support for this view of weaker labor force attachment.

Although teenagers have a slightly higher and more cyclical rate of unemployment due to job loss, the much higher teenage unemployment rates are clearly due to the high rate for new entrants, reentrants, and job leavers. Although these components are also cyclically sensitive, they remain very high even in a year with a tight labor market like 1969. I shall return to discuss this more fully in the next section.

Finally, nonwhite unemployment rates are higher in every category but again job loss accounts for less than half of total unemployment.

Even though nonwhites have more difficulty in finding employment, unemployment due to voluntary separations and withdrawals from the labor force are approximately twice the level for whites.

The evidence presented in this section can be summarized briefly: The current structure of unemployment in the American economy is not compatible with the traditional view of a hard core of unemployed who are unable to find jobs. Even with the high unemployment rate of 1971, the durations of unemployment were short, job losers accounted for less than half of unemployment and quit rates generally exceeded layoffs. An examination of the past experience of individual demographic groups indicates very substantial variation in the response of unemployment rates to aggregate demand and implies than even an extremely tight labor market would leave some groups with high unemployment rates. The next three sections examine why these unemployment rates are not more sensitive to aggregate demand and suggest possible policies to deal with these problems.

III. UNEMPLOYMENT AMONG YOUNG WORKERS

Unemployment rates for young persons seem outrageously high. In 1971, male teenagers had an unemployment rate of 16.6 percent. Even among those aged 20 through 24, the unemployment rate was 10.3 percent. If unemployment in these groups could be reduced to the same rate as for mature men, the overall rate would fall by more than one-third.

Similar results are obtained if attention is limited to the full-time labor force and to persons whose major activity is not attending school. Among male teenagers in the full-time labor force, the 1971 unemployment rate was 16.9 percent; for 20- to 24-year-olds, it was 10 percent. Among males aged 16 through 21 whose major activity was not going to school, the unemployment rate was 13.5 percent.

An examination of the British experience indicates that such relatively high rates among young persons can be avoided. The 1961 British census[1] showed that the unemployment rate among male nonstudents aged 16 to 17 was only 2.1 percent. The same rate also prevailed for 18- to 19-year-olds and 20- to 24-year-olds. For 25- to 34-year-olds, the rate then fell to approximately 1.6 percent. British young people have extremely low unemployment rates, both absolutely and, by comparison with the United States, in relation to older workers. I shall return later to what I believe are some of the reasons for the very favorable British experience.

The statistical analysis presented in the last section shows that the unemployment rates of young persons would remain high even in a very tight labor market. Youth unemployment is not primarily due to inadequate demand. There are two sources of the chronic high unemployment in this age range: unnecessarily slow absorption of new entrants and low job attachment among those at work. New entrants to the labor force in 1971 spent an average of 9.1 weeks until their first employment. Among teenagers, new entrants contributed 6.7 percent to the unemployment rate. For this group, new entrants therefore accounted for 40 percent of total unemployment.

The second source of unemployment—the high rate at which young men and women lose jobs, quit jobs, and drop out of the labor force—is both a more serious problem and a more difficult one to attack. All of the evidence points to this highly unstable character of employment, rather than to any long-term difficulty in finding jobs, as the primary source of unemployment among experienced young workers. First, the mean duration of unemployment is much lower for this group than for the rest of the labor force. Even in 1971 when the mean duration for all unemployed was 11.4 weeks, among 16- to 21-year-olds the mean was only 8.5 weeks; while 24 percent of all workers were

[1] It is necessary to use census data for Britain because continuous unemployment statistics are based only on registered unemployment; there is no continuous survey data.

unemployed for more than 15 weeks, only 15 percent of 16- to 21-year-olds were. Second, unemployment among job-leavers and those reentering the labor force is much more important for younger workers than unemployment among job-losers. In 1971, teenage job-leavers and reentrants contributed 7.1 percent or more than two-thirds of the unemployment among experienced teenage workers. Third, these high reentrant rates appear to be associated with relatively high rates of being outside the labor force. In 1971, among 16- to 21-year-old males whose major activity was not attending school, more than 13 percent were not in the labor force. The "nonemployment rate," i.e., the ratio of the unemployed plus those outside the labor force, is therefore an extremely high 27 percent. Of those 16- to 19-year-olds outside the labor force and not in school, only about one-tenth stated the inability to find a job as the reason for not seeking work. Another one-tenth indicated ill-health and home responsibilities. The rest are reported in the general "all other reasons" category. For 20- to 24-year-olds, the results are very similar; for only one-tenth of those outside the labor force was an expected inability to find work the reason for not seeking employment. Finally, a survey[2] that followed the same group of young men from October 1966 through October 1968, found that approximately one-fourth of black 16- to 20-year-olds had three or more spells of unemployment and about half had two or more interfirm shifts during the 24 months. Among whites the proportion experiencing at least one spell of unemployment was similar—after educational differences are taken into account—but multiple spells of unemployment were less common. Still one-fifth of whites and two-fifths of blacks between 16 and 24 who were completely out of school experienced some unemployment during those 2 years despite the very low overall national unemployment rate.

Why is employment so unstable and labor force attachment so weak in this age range? Why do young American workers experience so much higher unemployment rates than their British counterparts? I believe that a fundamental reason is the types of jobs that are available and the lack of adequate reward for stable employment. I will return below to discuss this in more detail and to suggest possible remedies. Before doing so, however, I want to indicate several ways in which the official figures overstate the magnitude of the social and economic problem of unemployment among young people.

Part of the high quit rates and rates of leaving the labor force[3] merely reflects the impact of our educational system and the seasonal character of the labor force activity of students. Those who have not stopped their formal education seek full-time employment when schools are closed and may also seek different part-time jobs during the school year. Since attending school is the major activity of more than 23 percent of the labor force between 16 and 21 years of age, the peculiar labor market behavior of that group has a substantial impact on the statistical picture of youth unemployment. If those

[2] The National Longitudinal Survey, sponsored by the U.S. Department of Labor. See Parnes *et al.* (1970).

[3] There is, unfortunately, no regularly published information on the way in which reentrants to the labor force were separated from their previous job. More information on the frequency of quits among different types of individuals (i.e., not based on establishment data) and of leaving the labor force would be very valuable.

who are looking for part-time work only are not counted in the unemployed, the unemployment rate for 16- to 21-year-olds drops from 15 percent in 1971 to 10.2 percent. Moreover, many of those who leave school and take jobs later return to being full-time students. High unemployment among young Americans is therefore in part a reflection of our commitment to providing many more years of schooling than is common in other countries and is in part the price we pay for a very fluid educational system which encourages people to move back and forth between full-time work and full-time education.

If attention is limited only to those for whom going to school is not the major activity, the unemployment rates are still very high. Among 16- to 21-year-olds in 1971, the official unemployment rate was 13.6 percent. There is, however, some evidence that the method used by the Current Population Survey (CPS) causes the official estimates to overstate considerably the rates of unemployment among out-of-school youths. The CPS generally gathers information about all members of a household from *one* of its adult members, most frequently the housewife. The extensive National Longitudinal Survey of males 14 to 24 years of age, sponsored by the Department of Labor and directed by Prof. Herbert Parnes of Ohio State University, found that interviewing the young men themselves produced quite different answers than the CPS obtained to the same question by interviewing a single household adult. Published reports on the surveys of 1966, 1967, and 1968 confirm the existence of this substantial bias. Table 8 compares the unemployment rates estimated by Parnes and his associates with the corresponding CPS figures.[4] The data relates to October 1966, and is limited to young men who are out of school. Comparing columns 2 and 3 shows that the CPS rate is nearly twice as high in every age group as the unemployment rate reported by the young men themselves. The overall CPS rate for 16- to 21-year-olds is 7.4 percent, the corresponding Longitudinal Survey rate is only 4.3 percent. For black 16- to 21-year-olds, the unemployment rate falls from 11.6 percent based on CPS methods to 6.8 percent in the Longitudinal Survey. Columns 4 and 5 show that the CPS also overstates the fraction of out-of-school youths who are neither employed nor looking for work.

TABLE 8.—UNEMPLOYMENT AND LABOR FORCE PARTICIPATION AMONG YOUNG MALES NOT ENROLLED IN SCHOOL: A COMPARISON OF CPS AND LONGITUDINAL SURVEY ESTIMATES, OCTOBER 1966

Color and age	Unemployment rates		Labor force participation rates	
	CPS	LS[1]	CPS	LS[1]
(1)	(2)	(3)	(4)	(5)
Whites:				
16 to 17	18.8	8.3	76.4	91.9
18 to 19	7.9	4.2	89.2	92.5
20 to 21	4.3	3.0	93.8	97.4
22 to 24	2.3	1.0	100.0	98.3
Blacks:				
16 to 17	22.9	16.3	59.3	84.9
18 to 19	11.2	7.6	84.9	92.4
20 to 21	10.1	2.4	95.8	95.8
22 to 24	3.1	3.1	96.2	96.0

[1] LS is the longitudinal survey. See text for references.

[4] The comparison is based on Parnes *et al.* (1970), p. 235.

The size of the surveys, the consistency of the pattern, and the replication of the results in 3 separate years convinces me that the discrepancies found by the Longitudinal Survey are not due to statistical chance or differences in interpretation. It is clear that more young men have jobs than is reported to the Current Population Survey.[5] But even with the more encouraging estimates based on the Longitudinal Survey, the unemployment rates of those under 20 are much higher than they need be. The Longitudinal Survey estimates of 8.3 percent among white 16- to 17-year-olds is four times the British rate in the same age group and the 4.2 percent for 18- to 19-year-olds is twice the British rate. Part of this difference no doubt reflects the fact that a much smaller proportion of American youths have joined the full-time labor force in this age range. The Americans under 20 who are seeking full-time employment are therefore probably a less able group than British workers in the same age group. Nevertheless, the Longitudinal Survey rates are high in absolute terms and probably represent a real excess in comparison with British experience.

In considering the gap between the unemployment rates of young persons and of more mature workers, it is important not to lose sight of their differences in motivation and attitudes. Most young workers have no family responsibilities and many continue to live with their parents. It is significant that the 1971 unemployment rate for 16- to 24-year-old males who were classified as "household heads" was only 6.4 percent while all others in this age-sex group had an unemployment rate over 16 percent. Although today's high wage rates provide a substantial reward for working, they also permit a comfortable standard of living with significantly less work or less responsible work than was required 20 years ago. Many young persons want more leisure than is consistent with full-time employment and a permanent attachment to a particular firm. They prefer to alternate between working and other activities rather than seeking and holding permanent employment. These remarks are not intended as criticism. The behavior of these young persons is seen in better perspective by comparison with our student population. The major activity of over 40 percent of 16- to 21-year-olds is attending school. The academic schedule provides frequent long vacations. For those in higher education, the daily routine is varied and the individual is generally free to choose his own activities and pace of work. Perhaps much of the high turnover and voluntary labor force withdrawal reflects an attempt to enjoy the same freedom and occupational variety that we take for granted in our student population of the same age.

The extremely high unemployment rates are therefore not quite what they seem. They reflect the peculiar labor force behavior of students, the CPS methods that may lead to substantial underestimates of youth employment, and the temporary and voluntary unemployment that young people can afford in an affluent society. Despite all of

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[5] There is some evidence that the CPS estimates may actually be too low in certain geographical areas. A special census survey of low income urban areas found higher youth unemployment and nonemployment rates than the CPS had reported for those areas. [In a comment on this report, Mr. Hyman Kaitz of the Bureau of Labor Statistics notes that a coding error in the Parnes data has been discovered. In my reply I indicate why this does not alter the general conclusions of the current analysis.]

this, I believe that there does exist a real and serious problem. The high turnover rates and voluntary unemployment are a response to the unsatisfactory type of job that is available to many young workers. These are often "dead end" jobs, offering neither the opportunity for advancement within the firm nor training and experience that would be useful elsewhere.[6] The young worker's incentive to stay at work is often further reduced by a seniority system that implies that the newest employees are most likely to be laid off during the next small business downturn. Moreover, the lack of sufficient opportunities to begin careers leading to high paying jobs or to obtain valuable on-the-job training in industry and business is no doubt responsible for an excessive reliance on formal education. I shall not venture to guess how many of our college students might be served better by working if more adequate jobs were available.

I believe that the Government can and should develop new policies aimed at reducing unemployment among new entrants to the labor force and at increasing job stability among young workers. Improving the transition from school to permanent work is the easier problem. New entrants constitute over 10 percent of all unemployed and more than a third of the teenage unemployed. Nearly 80 percent of all unemployed new entrants are under 20 years old. In 1971, half of new entrants spent more than a month in finding their first job. One-sixth searched for more than 15 weeks.[7]

The single most effective way of reducing unemployment among new entrants as well as improving the quality of first jobs would be the establishment of a special Youth Employment Service. The British experience with such a program suggests its potential impact in America. In a recent year in which approximately 280,000 boys between 15 and 17 entered the labor force,[8] the Youth Employment Service arranged 200,000 employment placements for boys in that age group. While some of these placements are not for new entrants, the magnitude of the British achievement is enormous. Part of their success is due to their direct contact with students: nearly 80 percent of school leavers who are not going to universities are interviewed in school by the Youth Employment Service.[9]

I would favor a Federal program that reimbursed States for the cost of operating a Youth Employment Service that met certain Federal standards. The Service should be separate from the regular Employment Service. It should deal only with persons below 21 years of age. Although available to those who have already left school, its primary focus should be an active program of advising and placing those who are about to leave. A participant State should require each student to be interviewed by the Youth Employment Service before he grad-

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[6] See Doeringer and Piore (1971), especially chap. 8, for a discussion of these problems.

[7] Unfortunately, the available statistics do not distinguish new entrants who are seeking permanent employment from new entrants who are students looking for summer work or a part-time job during the school year. I suspect that the duration of unemployment among new entrants seeking permanent employment would be longer than average.

[8] Compulsory education in Britain did not extend beyond 15; approximately one-fourth of those new entrants between 15 and 17 were 15-year-olds.

[9] There is a program with similar experience in Germany. See Department of Labor (1970).

uates from high school or is allowed to leave school legally. Making a Youth Employment Service an integral part of the educational system should facilitate the transition from school to job.

The knowledge that everyone entering the labor force is seen by the Youth Employment Service would encourage employers to list jobs that are not now given to the regular Employment Service. If those leaving school are more aware of the options open to them, they are more likely to find a job with which they will be satisfied. They will not only find a better job in this way but will also be less likely to leave that job in an illusory hope of improving their position.

Additional increases in the stability of youth employment will be much harder to achieve. For many young workers, especially for those with less than the average amount of education, the available jobs do not induce sufficiently strong job attachment. Part of the solution in these cases is to change the expectations that condition the behavior of employers and employees. The employers anticipate high quit rates and design the job situation to minimize the costs associated with turnover. On-the-job training and the development of general skills is minimal. Any decrease in demand leads to the laying off of some of the recently hired workers. The young employees who find themselves in this unattractive "secondary labor market" [10] respond to these conditions by high absenteeism and frequent quits.

At the root of these mutually reinforcing counterproductive expectations is the hard economic reality that firms cannot afford to offer useful on-the-job training to a broad class of young employees. A firm can generally provide the opportunity to acquire new marketable skills—by on-the-job training, detailed supervision, or even just through learning by experience—only to a worker whose net product during the period of training is at least equal to his wage.[11] For those young workers who come with some skills and who learn quickly, there is no difficulty in providing additional training while paying a reasonable wage.[12] But the disadvantaged worker who comes to the labor market with a low skill level and limited learning speed will generally not receive opportunities to learn as much.

It is here that the minimum wage law has an unambiguously harmful effect on some young workers. Even if an individual were willing to "buy" on-the-job training by taking a very low wage for 6 months or a year, the minimum wage law would not permit him to do so. It is unfortunate and ironic that we encourage and subsidize expenditure on formal education while blocking the opportunity for individuals to "buy" on-the-job training.[13] The British experience contrasts

[10] See Doeringer and Piore (1971), for a discussion of secondary labor markets and of the importance of internal job structures within firms.

[11] This of course need not be true for firm specific skills or in other situations where the individual cannot readily market his new skills elsewhere.

[12] It is significant that although young blacks generally have much higher unemployment rates and turnover than whites, those blacks who followed vocational training programs in high school had approximately the same employment experience as all white high school graduates. It is also clear that those who had been employed while they were students have more favorable labor force experience after they leave school but the reasons here are obviously ambiguous.

[13] There are some strange exceptions to this such as hospital schools of nursing that charge very low fees and obtain substantial services from the student nurses. Presumably, a negative wage is consistent with the minimum wage law but not a low positive wage.

sharply with our own. More than 40 percent of male employees under 20 are classified as apprentices, articled clerks [14] and formal trainees; less than 18 percent of males between 16 and 19 are students.[15]

The burden of this effect of the minimum wage law falls most heavily on the disadvantaged. Because they bring little to the labor market, they are able to obtain little in exchange. It is clear from the few successful programs in training the disadvantaged that for some time these workers produce little if any net revenue over the costs of training.[16] A job at the minimum wage will not permit any significant amount of training. The disadvantaged youth, for whom more formal education is unsuitable, is therefore forced into dead end jobs without training or opportunities for advancement. In the short run, this means high absenteeism, high quit rates and high turnover. The long-run effects are even more serious. The lack of additional training for those who start with low skills makes them part of the permanent poor. For the disadvantaged, the minimum wage law may have the ironic effect of lowering lifetime incomes by a very large amount.[17]

The problem then is to remove the barrier to better on-the-job experience and training that is currently posed for some young workers by the minimum wage law. There are a variety of ways to do this. The method that one chooses depends in part on who one wants to bear the cost of these better job opportunities. One obvious solution would be to modify the minimum wage law so that its full force does not apply to young workers. This would put the full cost of the better training on the young workers themselves. Although there is strong opposition to changing our current minimum wage system, the case for a minimum wage is clearly weakest when applied to young workers. At best, the minimum wage is an administratively simple way of providing a minimum annual income for every family with a full-time working member. It suffers even in this context from its failure to relate that income to family size. This is particularly relevant to young workers who are single and who often live with their parents.

There are, however, two practical objections to relying solely on a reduction in the minimum wage for young workers as the means of facilitating better job experience. First, some young workers would simply not be able to afford to take a job with adequate training and experience. The low incomes associated with such jobs would effectively exclude those with family responsibilities. Single individuals who had to support themselves would also be eliminated from the best programs; the cost of some successful training programs has been so high that without a direct subsidy employers could offer little more than a "tuition-free education." Second, many of those who could both afford and benefit from a low wage job with training would not take

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[14] The term refers to apprentices in commercial and professional occupations.

[15] Britain has no minimum wage law. Other countries with a minimum wage often treat young workers differently from adults.

[16] See Doeringer (1969) for summaries of a number of cases.

[17] Note that this view of the harmful effects of applying the minimum wage law to young workers is quite different from the usual proposition that the minimum wage law creates unemployment because at the established level the supply of workers exceeds the demand. The evidence on that is ambiguous. It is clear that there is no lack of jobs in the sense that nearly any young person can get a job but it is not certain that they all could. The view developed in the text attributes the unemployment to the indirect effect on the strength of labor force attachment.

the opportunity. Uncertainty about the future value of the training and impatience for immediate income would lead many to jobs with higher pay but less useful experience. Some form of subsidy is therefore necessary if sufficient on-the-job training is to be achieved. Given the substantial direct and indirect subsidies that are now given to students, a program of subsidies for young workers is only equitable. Such subsidies would also have the favorable effect of reducing the current distorting incentives to choose formal education rather than learning on the job.

The advantage of removing the minimum wage barrier to training could be achieved without any change in the minimum wage if a subsidy were paid to employers for all young workers. This would, however, be an inefficient way to deal with the problem because it would provide the same subsidy regardless of the young person's family income. Such a program would either yield relatively little useful training or be quite expensive. A more reasonable solution would be to combine a decrease in the minimum wage with a stipend that is related to the financial situation of the young worker and his family.

A wide variety of alternative programs, differing in the degree of control that the Government exercises over the individual's training, could be designed. Central to all such programs would be a Youth Employment Scholarship which is paid to young workers as a supplement to their wage income.[18] At one extreme, each individual would receive his scholarship and make whatever job arrangements he wished. The program would rely on the individual worker to select the job that offered him the most valuable combination of training and current wage. The danger, however, is that because of uncertainty, ignorance or impatience, many would fail to take advantage of the opportunity to acquire training and would seek the highest current wage.[19] At the other extreme are arrangements like the current JOBS program in which the Government contracts directly with firms to provide specific training to individuals selected in a particular way. Neither the rate of acceptance of this program in the business community nor the end results for the trainees has been encouraging. The contract route places undue emphasis on the formal characteristics of the program and puts the Government in the inappropriate role of buying specific educational services rather than of subsidizing suitable job settings for young workers.

Along the spectrum of possibilities between these two extremes are different combinations of prior approval, supervision and incentive payments. Youth Employment Scholarships might be restricted to persons holding jobs that have been approved on an ad hoc basis by the local youth employment service. Alternatively, the use of Youth Employment Scholarships could be restricted to firms or job programs that had previously been certified to satisfy minimum national standards. Over time, a firm's eligibility could be made conditional on its achieving a satisfactory average performance with respect to the aver-

[18] Although the size of each scholarship should be related to each individual's circumstances, a minimum stipend independent of family income would be desirable. This would both influence the character of the program and partially offset the current indirect subsidies of formal education that benefit all students.

[19] This tendency could be partly controlled by making the size of the scholarship larger if the wage rate is lower.

age job tenure, quit rate and income gains of those who came with Employment Scholarships.

Specific incentive payments to the employer firms could increase the effectiveness of the program. Very high quit rates and rapid turnover among the young workers in a firm indicate that their jobs are not providing useful experience and are not part of effective internal career structures. Firms could be encouraged to develop better opportunities for training, experience and advancement by a system of incentive payments or tax credits. The payment, based on the number of Employment Scholarship employees, should reward a record of high retention rates and income increases while penalizing high separation rates and income stagnation. The traditional investment tax credit has been a successful stimulus to business investment in physical capital. A well designed Employee Investment Tax Credit could spur better efforts to develop our Nation's stock of human capital.

The cost of a Youth Employment Scholarship program would be influenced by five key factors: (1) the level of the minimum wage for young workers; (2) the amount of training and experience that is to be "bought" by sacrificing short-run output per worker; (3) the average duration of the individual scholarships; (4) the magnitude of the supplementary incentive payments to employers; and (5) the effect of family circumstances and the young person's wage rate on the size of the Employment Scholarship. Any effective program will be expensive. To obtain an order of magnitude, consider a program that provides all teenagers with a scholarship for their first year of full-time labor force participation with the size of the scholarship a function of individual circumstances. If scholarships ranged from $500 to $2,500 with an average of $1,500, the total cost of scholarships would somewhat exceed $2 billion. The supplementary Employee Investment Tax Credits would increase the total cost of the program. This level of scholarship support is compatible with a relatively low minimum wage for young workers. A higher minimum wage would permit smaller scholarships but would require large subsidies to employers if effective training is to be obtained.[20]

Although the cost of such a program is high in relation to Federal spending on previous manpower programs, it is not high in relation to the other subsidies used in the attempt to cut unemployment. The traditional investment tax credit alone has a substantially higher cost than the Employment Scholarship and Employee Investment Tax Credit outlined above. Moreover, the gains from such a program would be much more than a reduction in the unemployment rate for young workers. The better jobs that are created in this way would permanently increase the productivity of workers and would open career ladders to higher paying jobs. This would not only reduce lifetime poverty among disadvantaged labor force entrants but would also reduce the artificially inflated demand for formal education by those who could benefit more from industrial and commercial experience. An appropirate combination of a reduced minimum wage for teenagers, a substantial Youth Employment Scholarship program and

[20] If, for administrative or other reasons, the minimum wage for young workers cannot be reduced, the alternative to larger employer subsidies would be to give a larger scholarship to each new worker who could then use the scholarship to pay his employer for on-the-job training.

a system of specific incentives to firms would not only alleviate the symptoms of high unemployment among the young but would also treat the underlying disease of inadequate opportunities for manpower development.[21]

[21] The Youth Employment Scholarships could substantially increase the effectiveness of the youth employment service. Without such scholarships and with the current minimum wage, many of the most disadvantaged young workers could only be hired for unskilled and temporary jobs. This in turn would deter employers from hiring them in advance through the youth employment service. Because scholarships would transform the nature of the jobs, employers would be more interested in seeking in advance those students who would later be good trainees under the new program.

IV. FOUR SOURCES OF UNEMPLOYMENT AMONG ADULTS

Unemployment among mature workers reflects several distinct problems. Identifying these separate aspects suggests a mix of possible policies for lowering the unemployment rate. This section will discuss four reasons why the adult unemployment rate is higher than it should be. Several possible policies will be considered briefly. The next section will examine in more detail the potential effects of changing our unemployment compensation system.

Some unemployment is, of course, the inevitable consequence of a healthy and dynamic economy. The changing mix of output and the process of technological advance displace workers who generally become temporarily unemployed. Women often return to the labor force as their children grow older; in 1971, reentrants accounted for 40 percent of the unemployment among women 20 years old and over. Families occasionally migrate to new areas in order to find better employment opportunities and then spend time searching for work. All of these sources of unemployment produce important gains for the economy and often for the unemployed themselves. It is clear that they should not be discouraged. In particular, it is important to avoid the temptation, to which other countries have sometimes succumbed, to prevent temporary unemployment by permanent subsidies for unwanted output and inefficient technology.

Although some unemployment among adults is appropriate, the actual unemployment rates among experienced men clearly represent an undesirable and unnecessary waste of resources. In the postwar period, the unemployment rate among males aged 20 and over averaged 3.5 percent. In 1971, it was an unfortunate 4.4 percent. As already noted in section II, the rate has generally been higher among women than men. In 1971, it was 5.7 percent. The combined unemployment rate for adults[1] was 4.9 percent. These rates, and the U.S. postwar experience in general, are much higher than the unemployment rates experienced in most other industrial nations. Even Britain, which unlike some other European countries does not maintain full employment by temporary imports and exports of foreign laborers, has achieved adult unemployment rate below 2.5 percent in the 1960's. What could be done in the United States to achieve a comparable performance?

Although better management of aggregate demand has a more important role to play in lowering the adult unemployment rate than in improving the teenage employment situation, macroeconomic policies cannot do the job alone. This point was stressed in section I and examined statistically in section II. It is now time to consider the more specific reasons why a variety of policies are needed to achieve a more desirable level of unemployment among adult workers. To do

[1] The term "adult" is used here in contrast to "teenager"; it includes persons aged 20 and over.

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so, it is useful to distinguish and analyze the implications of four different sources of adult unemployment: (1) the cyclical and seasonal volatility of the demand for labor; (2) the weak labor force attachment of some groups of workers; (3) the particular difficulty in finding permanent employment for persons with very low skills or other employment disabilities; and (4) the average of several months of unemployment among job losers.

Cyclical and Seasonal Variation in Demand

The American unemployment rate is not only higher than the rates observed in foreign countries but also much more cyclically volatile. During the 1960's the total U.S. unemployment rate varied from 3.5 percent to 6.7 percent. The cyclical variation in unemployment—the gap between peak and trough—was 3.2 percent. The unemployment rate was nearly twice as high in the worst year as in the best. During the same decade, the corresponding British unemployment rate [2] varied from 2.1 to 3.4 percent. The cyclical variation was only 1.3 percent, substantially less than half of the U.S. gap. Despite the much lower rate in the best year, the cyclical swing only increased the British rate by some 60 percent.

It would be wrong to infer from these data that Britain's less volatile unemployment rate is due to a more stable growth of demand and production. A comparison of American and British experience shows instead that changes in aggregate demand have a substantially smaller impact on employment in Britain than they do in the United States. More specifically, I have examined statistically the relation between annual changes in the unemployment rate and the corresponding changes in industrial production in the two countries. The results show that a 1-percent change in industrial production has about twice as big an effect on the unemployment rate in the United States as it does in Britain. Moreover, while nearly all of the year-to-year variation in the U.S. unemployment rate can be explained by fluctuations in industrial production, the association between unemployment and industrial production is much weaker in Britain.

Equations 4.1 and 4.2 relate the annual change in the male unemployment rate to the corresponding percentage change in the index of industrial production.[3] In the United States, a 1-percent fall in the Federal Reserve Board index of industrial production (JINDUS) implies a rise in the male unemployment rate (RUMUS) of 0.2 percentage points. The variation in industrial production explains 91 percent of the annual changes in unemployment. In contrast, a 1-percent fall in the United Kingdom index of industrial production (JINDUK) only raises the unemployment rate (RUMUK) by 0.11 percentage points. Less than half of the historical variation in these unemployment changes can be explained by changes in industrial production.

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[1] Adjusted to U.S. concepts by the Department of Labor.

[2] The rate for males is used because the annual British data for female unemployment is seriously incomplete. The United States and United Kingdom male unemployment rates can reasonably be considered comparable for the current purpose.

$$(4.1)\quad RUMUS_t - RUMUS_{t-1} = 0.89 - \underset{(0.02)}{0.20}\left(\frac{JINDUS_t - JINDUS_{t-1}}{JINDUS_{t-1}}\right)$$

$\bar{R}^2 = 0.91$ (1955 to 1971)

$$(4.2)\quad RUMUK_t - RUMUK_{t-1} = 0.46 - \underset{(0.03)}{0.11}\left(\frac{JINDUK_t - JINDUK_{t-1}}{JINDUK_{t-1}}\right)$$

$\bar{R}^2 = 0.49$ (1950 to 1969)

These differences between United States and United Kingdom experience are corroborated by studying the relation between the level of unemployment rate and the concurrent deviation of industrial production from its trend value. In the United States, the index of industrial production grew at an annual rate of 4.6 percent from 1954 through 1971. The variable CYCLEUS will denote the ratio of the actual index of production (JINDUS) to the value predicted by the exponential growth function. Equation 4.3 shows that if the index of industrial production falls 1 percent below the trend, the unemployment rate rises by 0.20 percentage points. Additional lagged values of CYCLEUS are not significant.

$$(4.3)\quad RUMUS_t = 24.35 - \underset{(2.34)}{19.77}\ CYCLEUS_t$$

$\bar{R}^2 = 0.81$ (1954 to 1971)

The corresponding United Kingdom cycle variable (CYCLEUK) represents the ratio of industrial production to Britain's 3.1 percent growth path. Equation 4.4 shows that the effect of changes in CYCLEUK is smaller and that very much less of the historical variation in the United Kingdom unemployment rate can be explained by fluctuations in industrial production.

$$(4.4)\quad RUMUK_t = 15.48 - \underset{(5.71)}{13.37}\ CYCLEUK_t$$

$\bar{R}^2 = 0.15$ (1949 to 1969)

These equations[4] suggest that much of the difference between the volatility of the United States and United Kingdom unemployment rates is due to the different ways in which employment in the two countries responds to changes in aggregate demand. The specific regression coefficients suggest that the U.S. cyclical unemployment range of 3.2 percentage points during the 1960's would have been about 1.9 percentage points if the American economy responded to variation in industrial production in the same way as the British economy. The lower British responsiveness therefore accounts for about two-thirds of the difference between the U.S. peak-to-trough gap of 3.2 percentage points and the corresponding United Kingdom gap of 1.3 percentage points.

British unemployment is less volatile because there is more cyclical labor hoarding and more disguised unemployment in British firms. During cyclical downturns, British firms are more likely than American firms to retain workers and assign them to less productive activi-

[4] A variety of other equations, including the use of manufacturing production and the exclusion of young workers, continues to support the results that British unemployment is less sensitive to fluctuations in industrial production.

ties rather than to lay them off for a temporary period. The reasons for this difference in behavior is unclear. It may reflect specific differences in seniority arrangements and unemployment insurance provisions or more general differences in industrial structure, the competitiveness of product markets, and the long-established national attitudes about the proper relation between employers and employees. British employment practices bring advantages in the form of income maintenance and job security. When remaining employed is a substitute for temporary unemployment and subsequent recall, there is also a gain in higher national income. In contrast, when remaining employed is a substitute for switching to a job with a different employer, the British practice will result in a lower aggregate productivity of labor. It would clearly be valuable to study why British firms and workers have chosen to respond differently from their American counterparts.[8]

A variety of special schemes might be developed in the United States to encourage firms to reduce the sensitivity of employment to changes in aggregate demand: required minimum notice before employees are laid off, large compulsory severance payments, a guaranteed annual wage, substantial tax penalties (rewards) for volatile (stable) employment, and so forth. Similar policies have already been adopted by some European countries. However, such actions can only lower the volatility of unemployment by reducing the efficiency of the labor market and therefore lowering real wages. There is no reason for the Government to impose a lower wage and the correspondingly greater employment security than the employees themselves actually want. Collective bargaining agreements can achieve any desired degree of employment security through the same techniques of minimum notice, supplementary unemployment benefits, and so forth. The outcome of collective bargaining, moreover, can reflect the employees preferences and the real opportunity costs of lost earnings. The Government should only provide inducements to disguised unemployment to the extent that these are considered a more efficient form of deficit spending[9] or that they provide tangible benefits to persons other than the individual employees and employers. It should go without saying that the government should also avoid policies that artificially stimulate the responsiveness of unemployment to changes in aggregate demand. Nevertheless, as I will discuss below, our current system of unemployment compensation may have the undesirable effect of stimulating the volatility of unemployment in this way.

Because American unemployment is very sensitive to variations in aggregate demand, it is particularly important that aggregate demand itself be made more stable. The causes of past demand fluctuations and the possible remedies for the future have been studied and discussed at great length. A further elaboration of these topics would be

[8] The potentially important effect of differences in unemployment compensation are discussed in section V.

[9] For example, unemployment compensation payments are now used to stimulate aggregate demand. It might be possible instead to pay wage subsidies to firms to reduce lay-offs rather than allowing higher unemployment to occur and then taking steps to stimulate re-employment of those workers. If there are significant hiring and training costs, such "preventive" wage subsidies might be more efficient.

out of place in the current paper. It would, however, be useful to consider very briefly the related issue of the effect of economic growth on the rate of unemployment.

It is often suggested that a higher rate of economic growth would bring with it a lower rate of unemployment.[1] The usual argument in support of this proposition might be summarized as follows:

> In a rapidly growing economy in which real output increases at 10 percent per year, even a serious cyclical fall in the rate of growth still leaves output increasing substantially. A 4 percent fall from the usual growth path still leaves output growing at 6 percent. With such rapid growth of output, firms still need additional labor and will not reduce their employment.

Such a statement misconstrues the nature of rapid growth. The high rates of growth of output in countries like Japan and Germany represent a rapid increase in output per employee, not in the number of employees. A 10 percent growth of output might, for example, reflect an 8 percent increase in productivity and a 2 percent increase in employment. Such rapid productivity growth requires a rapid increase in demand just to maintain the old level of employment. If potential output grows at 10 percent while demand grows at only 6 percent, there is a substantial fall in the need for labor. It is simply not true that an increase in the rate of potential growth will necessarily lead to lower unemployment. The evidence that Japan and Germany, both very rapidly growing economies, have enjoyed low unemployment might be explained by Japan's peculiar employer-employee relations and Germany's use of temporary migratory labor, youth employment policies, et cetera. At this point, the idea that a higher rate of productivity increase would also lower the rate of unemployment must be regarded as an optimistic hypothesis without theoretical justification or empirical support.

Seasonal variation in employment demand raises quite different issues from the cyclical variation that has been discussed until now. Seasonal unemployment is clearly not involuntary. An individual who accepts a job with seasonal fluctuations knows that he will be laid off or at least that there will be a significantly higher probability of being laid off. The total effect of seasonal variations in unemployment is substantial. During the 12 months from June 1971 through May 1972, the seasonally adjusted unemployment rate remained nearly constant, varying only between 5.2 and 5.5 percent. In the same period, the seasonally unadjusted rate varied from a low of 4.5 percent to a high of 6.3 percent. If seasonal unemployment could be avoided completely, the average unemployment rate would fall by more than 0.75 percent. While some seasonal unemployment may be technically necessary, other seasonal unemployment could no doubt be eliminated by changes in production methods, increased holding of inventories, the integration of firms with complementary seasonal demands, et cetera. Additional reductions in seasonal unemployment could be achieved if workers who are seasonally laid off would make the transition to new jobs with less time out of work. If these improvements could eliminate half the current seasonal unemployment, more than 300,000 man-years of unemployment would be avoided every year. It should be empha-

[1] This idea is emphasized and developed in "Measuring Employment and Unemployment: Report of the President's Committee to Appraise Employment and Unemployment Statistics" (1962).

sized, however, that some amount of seasonal unemployment is desirable. Even if public policies could be designed to eliminate seasonal unemployment completely, this would only be achieved at substantial real economic costs. The proper aim of public policy should be to avoid distorting the natural pattern of seasonal unemployment that would reflect both the preferences of employees and the attempts of employers to produce at minimum cost. Section V will discuss the ways in which our current system of unemployment insurance encourages excessive seasonal lay offs and unnecessarily long unemployment among those who have been laid off.

Weak Labor Force Attachment

Unemployment caused by weak labor force attachment is generally a smaller but more serious problem among adults than among young workers. While some of the unemployed adults who are not seeking permanent unemployment are still students or are mothers with young children, the social problems are associated with the group with low skills and little education. These adults suffer from the same limited opportunities as some of the young workers described in the last section. Because they have low skills, little education, and generally bad work habits, they never enter the mainstream of employment opportunities. The only jobs open to them are the dead end jobs with low pay and no future.

High unemployment among the men and women in this "secondary labor market" [8] reflects their rejection of the jobs that are available. Many of those with very limited job opportunities prefer to remain unemployed rather than accept what they consider undesirable jobs. Many others who take these jobs soon quit.

Boston's experience with trying to secure employment for a large group of such low skill workers dramatically illustrates that the problem is not providing jobs but making these jobs acceptable to the unemployed. During the 8 months beginning in September 1966, Boston's ABCD program referred some 15,000 disadvantaged workers to jobs. Seventy percent were offered jobs. Nearly half of the job offers—45 percent—were rejected. Of those who did accept work, less than half remained on the job for 1 month. A very high proportion of these separations were voluntary. Even among those over age 25 who were being paid more than $1.75 per hour in 1967, the separation rate in the first month was 33 percent.[9]

What can be done to reduce unemployment among low skilled adult workers? It is clear that the problem cannot be solved by increasing aggregate demand in order to create more jobs. There is no evidence of a shortage of jobs for this group. The Boston experience shows that jobs can be found but that they will not be accepted.[10] Lowering the rate of unemployment requires steps to bring the characteristics of the actual jobs and the standards of the acceptable jobs closer together.

It is sometimes suggested that expansionary macroeconomic policy

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[8] See Doeringer and Piore 1971, chapter 8, for an extensive discussion of the characteristics of the secondary labor market.

[9] See Doeringer 1969, for a more detailed description to this experience.

[10] The special problem of those with such severe employment handicaps that they cannot earn the minimum wage will be discussed below.

can play an important role by improving the quality of the jobs available to the least able workers. Those who support this view argue that the better jobs and higher pay that become available in a tighter labor market will reduce the voluntary unemployment and nonparticipation among this group. There is, unfortunately, insufficient data with which to evaluate this proposition. The aggregate unemployment statistics by age, sex, and color do not provide enough detail to identify the low skilled workers.[11] Although such workers are a disproportionately large fraction of nonwhite males, it is impossible to say how much of the fall in unemployment for this group during any cyclical tightening is actually due to a reduction in voluntary unemployment among those who are able to find better jobs.

The best available evidence—the statistics on labor force participation rates—indicate a pessimistic conclusion. Since 1948, the labor force participation rates of nonwhite adult males has dropped dramatically: from 97.2 percent to 92 percent among 35- to 44-year-olds and from 94.7 percent to 86.9 percent among 45- to 54-year-olds. Among white males in those age groups the changes were extremely small: from 98 percent to 97 percent and from 95.9 percent to 94.7 percent. This nearly threefold increase in voluntary withdrawal from the labor force occurred during a 25-year period in which wage rates rose nearly 50 percent. This is clearly contrary to the notion that higher wage rates would reduce voluntary nonemployment. Much of the decrease in labor force participation occurred at the same time as labor markets were tightening. From 1961 through 1969, while the overall unemployment rate fell from 6.7 percent to 3.5 percent, nonwhite adult male labor force participation rates continued to fall: from 94.8 percent to 92.7 percent among 35- to 44-year-olds and from 92.3 to 89.5 percent among 45- to 54-year-olds.

Similar conclusions are implied by the fall in the labor force participation rates of nonwhite adult males living in urban poverty neighborhoods during the period from 1967 through 1969, while the unemployment rate for that group was falling sharply. In 1967, with an unemployment rate of 5.7 percent among nonwhite adult males in urban poverty areas, 19.6 percent of that group were neither employed nor seeking work. By 1969, their unemployment rate had fallen to 4.3 percent; despite the tightening of the labor market, nonparticipants rose to 21.4 percent of that population group.

The evidence on nonparticipation rates contains two lessons. It is a warning that macroeconomic expansion and tighter labor markets are unlikely to bring a significant reduction in the voluntary unemployment that characterizes low-skill groups. It is also a reminder that the officially defined unemployment rate is the tip of the iceberg! For these low-skill groups, withdrawal from the labor force is much more common than official unemployment.

Recognition of these limits of expansionary macroeconomic policies has encouraged the creation of several major manpower programs during the past decade. All of these programs share the common philosophy that the best way to reduce nonemployment in the groups designated as disadvantaged is to provide training that can improve

[11] The longitudinal survey of experienced adult workers (see Parnes *et al.*, 1970) will provide a unique opportunity for an analysis of the cyclical experience of low skilled workers.

the quality of jobs open to them. During the 9 years from 1963 through 1971, there were more than 6 million new enrollments in Federal manpower programs. Even if the Neighborhood Youth Corps—which does not deal with adults—is excluded, there were nearly 3 million new enrollments during that period. In 1971, the six major programs that do not concentrate on young persons enrolled more than 350,000 persons over 21 years old. The total Federal cost of these programs from 1963 through 1971 was nearly $7 billion; in 1971, the Federal obligation was $1.5 billion.

Despite 10 years of experience with these large programs, there has been no clear and definitive evaluation of their impact. We do not know whether unemployment rates are lower and participation rates are higher for those who have enrolled in a manpower program than among those with the same characteristics of age, sex, education, et cetera, who have not. There have apparently been no controlled experiments to compare the effects of institutional training under the MDTA program with on-the-job training in the JOBS program. The isolated evaluations of particular local experiences or the results within individual firms have generally suggested that manpower programs have positive but small effects. The interpretation of these evaluations is clouded, however, by a lack of adequate controls and by the problem of self-selecting trainees.[12] The clearest successes have been obtained by large firms that have combined expensive periods of on-the-job training with opportunities for further employment and advancement.[13]

Among adults who have been out of school for several years or more, the handicap of low skills is exacerbated by the problem of bad employment habits. Absenteeism, frequent lateness, petty thefts, and high quit rates are characteristic of workers in the secondary labor markets. It is difficult for them to break these habits and conform to the discipline of mainstream employment. The possibility of preventing these problems by better experience and training of young workers makes the policies discussed in the last section all the more important.

Macroeconomic policies and manpower programs both seek to reduce nonemployment by making the available work more attractive. It is important not to lose sight of the fact that the extent of voluntary nonemployment also depends on the attractiveness of not working. Today's welfare rules are a notorious deterrant to work for those who are receiving welfare. Moreover, the rapid rise during the last decade in the value of public assistance that is available to a family with little or no earnings—including cash payments, Medicaid, food stamps, and housing subsidies—has substantially increased the attractiveness of nonemployment or intermittent employment for those with low skills. The increased levels of unemployment compensation also encourage intermittent work, especially among two-earner families.

There is also the complex problem of unreported earnings among low income families. Some of this derives from criminal activities or from lawful services performed for illegal employers. But cash

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[12] See Robert Hall 1971, for a discussion of this evidence and a generally pessimistic view of the potential of manpower programs.

[13] See Doeringer 1969, for several case studies that illustrate this.

payments designed to avoid taxes and to prevent reductions in unemployment compensation or welfare benefits are also important. For casual workers in the secondary labor market, cash payments can avoid Federal income taxes at a minimum marginal rate of 14 percent, plus combined employer and employee social security taxes in excess of 10 percent, plus State income, unemployment compensation, and workmen's compensation taxes. These taxes may easily total more than 30 percent of the worker's gross pay. By evading taxes and receiving payment in cash, the effective net wage can be increased by nearly 50 percent. This provides a substantial incentive to both employers and employees in situations where recordkeeping practices can be lax to share the potential gains of nonreporting. The higher wages in such casual labor markets are a further inducement to intermittent employment.

The most effective way to achieve a substantial reduction in nonemployment among low skilled groups is to combine improved manpower programs with a reexamination and redesign of the current adverse incentives.

The Current Unemployables

In addition to those who are cyclically unemployed or voluntarily out of work, there is a substantial residue of unemployables who would be unable to find steady employment even in a very tight labor market. Permanent physical disability, subnormal intelligence, or psychological problems severely limit the productivity of these men and women. The problem is most serious among those with both a physical impairment and limited education.[14] Law and custom prevent firms from lowering wages to the levels at which it would pay to hire handicapped individuals.

Although vocational rehabilitation could improve the prospects for some of them, in many cases, especially among those who are older and less educated, the costs of additional training would exceed the benefits. Two forms of job creation for these permanently disadvantaged workers have been suggested: subsidies to firms and direct permanent public employment.[15] A third option, integrating the minimum wage law with general income maintenance, is also possible.

Wage subsidies to private firms are designed to fill the gap between the productivity of these very low skilled workers and the minimum wage. The primary objection to such a policy is that much of the subsidy would be paid for hiring workers who would have been hired anyway. Although this problem might be reduced by a careful procedure of certifying eligible handicapped workers, such a process would inevitably involve a large number of arbitrary individual decisions. The task would be made more difficult by the need to specify different subsidies for different degrees of occupational handicap. The scope for abuse, however, would be very much limited if the total wage—including the subsidy—were limited to the legal minimum

[14] See Luft 1972, for estimates of the impact of disability on unemployment and of the way in which this is exacerbated by low educational achievement.

[15] See Schultze *et. al.* 1971, for a description and alternative evaluation of these proposals. They do not distinguish between job creation for the handicapped and the general problem of unemployment among low skilled workers.

wage in that type of employment and if the handicapped individual could take his wage subsidy to any employer. Since most workers can earn more than the minimum wage, there would be no incentive to seek an inappropriate wage subsidy. Even if low skill workers in general were subsidized excessively, there would be no undue subsidy to employers if workers could take these subsidies to any firm. Competition among firms for these subsidies would pass the advantage of the subsidy back to the low-income workers themselves. The most serious problem with the subsidy plan would then be that substantial government funds went to raising the wages of very low paid employees rather than reducing unemployment. A system of wage subsidies to close the gap between the productivity of handicapped workers and the minimum wage is therefore quite appealing.[16]

Permanent public employment for those who are currently unemployable in the private sector is advocated by those who doubt the potential efficacy or cost-effectiveness of private wage subsidies. A further advantage claimed for public employment is that the Government, unlike private employers, could give primacy to job creation and make the production of a useful product a secondary consideration. Such a philosophy currently guides the program of sheltered workshops for the blind and for others with severe physical or mental impairments. Should it, however, be extended to those with less obvious occupational handicaps? The difficulty with a program of public employment is indicated by the question posed by Schultze and his collaborators (1971):

> What would be the appropriate size of a public employment program? The answer depends on the answers to two other questions: How many potential enrollees are there, and what proportion of them would actually enroll? . . . Two alternative actions might be taken to determine the "proper" size of a public employment program. One would be to guarantee a job to everyone applying, and find out how many do apply. A more practical procedure would be to start at a relatively low level and, if the jobs offered at that level were quickly snapped up, to offer more until some acceptable degree of saturation is reached (pp. 200–201).

The number of enrollees would, of course, depend on the rate of pay and the conditions of work. If the pay were not limited to the minimum wage, workers would be drawn away from productive private employment into these unproductive public positions. Even if these special public employees were only paid the minimum wage for manufacturing employees, workers who are currently employed in private jobs in agriculture and services would find public employment more advantageous. If the managers of the public employment program consider any useful output to be of secondary importance, public employment is likely to be less productive and therefore more costly to

[16] A second objection to the use of wage subsidies is that for some workers no feasible subsidy would be large enough to induce an employer to hire them if managers fear that, because of their unreliability, production lines would be interrupted, machinery destroyed, and so on. (See Schultze *et. al.* 1971, p. 200). This is unlikely to be a very serious problem. Although such unreliability may make some people unemployable at any wage in some firms and occupations, there are clearly other jobs in which they could be profitably employed at a sufficiently low net wage.

the Nation than private wage subsidies. Moreover, if the case for subsidized job creation rather than direct income support is based on the value to the individual of a sense of accomplishment, it is important that the employee be involved in useful production. There seems little reason to support a program of public employment with little concern for production unless a program of private wage subsidies has been tried and rejected.

Not all discussions of public employment have assumed that such a program would emphasize job creation rather than useful production. Some advocates of the continuation and expansion of the current Public Employment Program have stressed that Federal subsidies for such State and local employment is a useful way of satisfying unmet public needs. It would, however, be preferable to separate subsidies for public services from subsidies for those who have difficulty finding work. Failure to do so is likely to lead to an inappropriate mix of public services and a less productive use of currently unemployed workers. It would, of course, be appropriate to permit State and local governments to compete with private firms in hiring workers with wage subsidies. There is no reason to limit the subsidized workers to private employment. But the subsidy for public services should be given on its own merits and not as an indirect way of creating specific jobs.

It is sometimes suggested that the unusually high unemployment rates among youth, women, and minority groups could be reduced by targeting a permanent public employment program at these workers.[17] This ignores the fact that there is no evidence that these workers are permanently unable to find work. In contrast, jobs appear to be available with relatively little delay and the duration of unemployment is generally short. Moreover, the creation of public jobs may have little effect on unemployment in these groups. If those who are out of work find that the new public jobs are no more attractive in pay or working conditions than the jobs already available in the private sector, they will not increase their rate of employment. The public jobs will be filled instead by those who are already at work in the private sector. If instead the public jobs offer higher pay and better working conditions than are currently available, some of the unemployed will of course want to take these jobs. But the creation of these jobs will only lower the unemployment to the extent that the jobs are not filled by those who would otherwise be working in the private sector. The higher the wage on these public jobs, the greater the risk that they will be filled in this way. Finally, permanent public employment is an inappropriate policy for dealing with the *short-term* unemployment of unskilled labor that results from high lay-off rates. For such unemployment, public jobs would primarily be a replacement for private employment; for an unskilled worker who currently experiences 6 weeks of unemployment per year, a permanent public job would only prevent 6 weeks of unemployment but would eliminate 46 weeks of private employment.

An alternative to the development of a formal wage subsidy program is to integrate the minimum wage law and the system of income

[17] Public service jobs for young persons could give useful employment experience for labor force entrants. Outside clerical and related occupations, however, public employment is unlikely to provide the type of on-the-job training that could later be valuable in industrial employment.

maintenance. With a negative income tax, such an integration could be accomplished simply if the minimum wage is interpreted as applying to the sum of employees' market wage and the income maintenance payment converted to an hourly basis. For example, if the minimum wage is $2 per hour, an individual who receives $1,500 per year in income maintenance would be treated as receiving support of 75 cents per hour and could therefore accept a job that paid anything over $1.25 per hour. The actual application of such a principle would take into account the fact that the annual income maintenance payment depends on the amount that the individual earns. As a simplified example, consider an income maintenance scheme that pays an annual amount (A) equal to a basic payment that depends on family size (B) less one-half of the annual earned income (INC):

$$A = B - \tfrac{1}{2}(INC).$$

The income maintenance and minimum wage rules might be integrated by defining income, for the purpose of the minimum wage control, as 2000 times the individual's market wage (WAGE). The income maintenance formula is then:

$$A = B - 1000(WAGE).$$

This implies that the hourly income maintenance payment ($a = A/2000$) is:

$$a = \frac{B}{2{,}000} - 1/2\ (WAGE)$$

The gross wage to which the minimum wage law applies is then the sum of the market wage and the hourly income maintenance payment.

$$\text{Gross wage} = WAGE + \frac{B}{2{,}000} - 1/2\ (WAGE) = \frac{B}{2{,}000} + 1/2\ (WAGE)$$

An individual with a basic payment of $3,000 therefore earns a gross wage of $1.50 per hour plus one-half the market wage. If the minimum wage is $2 an hour, the individual can accept a job with a market wage above $1 an hour. If the basic payment is smaller, the minimum market wage is higher. If the basic payment exceeds $4,000, the individual can accept any form of employment.

This example is simplified but captures the basic principles. In practice, the rules would have to take into account the problems of families with more than one earner, of varying wage rates, and of temporary unemployment. This could be done without altering the basic notion of integrating income maintenance and the minimum wage. Such an integration would strengthen the income maintenance provisions for those who would otherwise be involuntarily unemployed while avoiding the cumbersome administrative problems of direct wage subsidies.[18]

[18] It might still be valuable to have direct wage subsidies so that low-skilled persons who would receive very small income maintenance payments, for example, some single individuals, could still obtain employment. A program of public employment at or below the minimum wage would also be desirable if the income maintenance program requires employment as a condition for receiving benefits. This would be especially important if income maintenance is not integrated with the minimum wage. It would be ironically unjust if a low-skilled person were prevented from working by the minimum wage law and then denied income maintenance payments because he was unable to find work.

Duration of Unemployment

Much of the recent theoretical discussion of unemployment has emphasized that workers remain unemployed because they are searching for better job offers.[19] A worker who is laid off often does not accept the first job offer in his own line of work but investigates several job possibilities over a period of months before accepting new employment. Part of this process of searching is information gathering. The worker who has not recently been unemployed generally does not know what wage and working conditions his own skills and experience will command in the market. He spends time locating relevant jobs and learning about them. Part of the search also consists of delaying in the expectation that the next job offer may be better. The greater the individual's uncertainty and the greater the variance of wage rates and working conditions in his relevant market, the longer he will tend to search.

Not all unemployment can be interpreted as conscious or unconscious search. Some skilled workers and union members know just what the local market wage is in their occupation and prefer to wait until such work becomes available rather than accept alternative work at substantially lower pay. Some workers are waiting to be rehired into the same job from which they were temporarily laid off because of a seasonal or cyclical fall in demand or because of scheduling problems. Some workers, especially those with severe handicaps, are not able to find any employment. At the other extreme, some of those who report themselves as unemployed are not seriously interested in finding employment and have made only limited efforts to find work.

The average duration of unemployment during the postwar period has been about 3 months.[20] This varies cyclically: in 1971, it was 11 weeks; in 1969, it briefly dropped below 8 weeks and in 1961 it rose over 16 weeks. These mean durations reflect a very skewed distribution. Although the mean in 1971 was 11 weeks, more than two-thirds of the unemployed had durations of less than 11 weeks and 45 percent were out of work for less than 5 weeks.[21]

Any reduction in the mean duration of unemployment would lower the average unemployment rate. A fall of 1 month in the average duration of unemployment would lower the projected future unemployment rate from 4.6 percent [22] to less than 3.1 percent.[23] Even a 2 week reduction would reduce the unemployment rate by 0.75 percent. Those who stress the importance of search activity suggest that the duration

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[19] See Mortenson (1970) and Phelps (1970) for a development of this theory.

[20] There are several problems in interpreting this number. It refers to the mean period that those who are currently unemployed have been out of work. The shape of the distribution of unemployment durations implies that this is close to, but not exactly equal to, the mean length of completed spells of unemployment. The problem is further complicated by the unemployed who drop out of the labor force.

[21] This distribution reflects substantially shorter periods of unemployment than the British experience but, as noted in Section II, many fewer become unemployed in Britain so the durations are not comparable for the current purpose.

[22] This is the unemployment rate projected for 1980 in Section I. The average rate in the postwar period has been 4.5 percent.

[23] This assumes that the shorter duration of unemployment does not increase the number who become unemployed. Although the shorter durations may induce increased quit rates, the effect of this is likely to be small, especially if the shorter durations are not due to changes in job opportunities.

of unemployment could be reduced by improving the flow of job market information. The computerized "job banks" recently developed by the Department of Labor are a primary example of this. So also is the recent proposal by Holt and others (1970) to increase greatly the size of the U.S. Employment Service.

The duration of unemployment also depends on the cost to the unemployed of remaining out of work. Our current system of unemployment compensation substantially reduces—indeed often almost completely eliminates—the cost of temporary unemployment. Because unemployment compensation affects adult unemployment more generally, including not only the duration of job search by the unemployed but also the cyclical and seasonal variation in labor demand and the job attachment of many low-skilled workers, the subject of unemployment compensation will be dealt with more generally in the next section.

V. IMPROVING THE INCENTIVE EFFECTS OF UNEMPLOYMENT COMPENSATION

For more than 30 years, unemployment compensation has provided valuable support for millions of unemployed workers and has been an important source of security to millions more who are employed. It is important to reexamine and strengthen this system by adapting it to the changing nature of unemployment.

All of the basic features of our current unemployment system were designed and adopted in the depths of the depression. The modern Keynesian principles of income determination were neither understood nor accepted. Now we are all Keynesians. We have come to accept the Government's general responsibility for maintaining a high level of demand through variations in spending, taxation, and monetary policy. The structure of unemployment has changed accordingly. The large pool of long-term unemployed workers has been replaced by a much smaller relative number whose durations of unemployment are also much shorter. Almost every unemployed person can now find a job in a very short time. Despite the changing nature of unemployment, the system of unemployment compensation continues in essentially its original form.

Under the economic conditions that have prevailed in the postwar period, our current system of unemployment compensation is likely to have increased the average rate of unemployment. The usual presumption, that unemployment compensation reduces unemployment because it automatically increases government spending when unemployment rises, is really irrelevant. The same fiscal stimulus would now be provided through other expenditure increases or tax cuts by a government committed to maintaining aggregate demand.[1] The primary effect on aggregate unemployment of our current system of unemployment compensation is not its contribution to aggregate demand but its adverse impact on the incentives of employers and employees.

This section explains why unemployment compensation is likely to increase nearly all sources of adult employment: seasonal and cyclical variations in the demand for labor, weak labor force attachment, and unnecessarily long durations of unemployment. It then suggests how the system of unemployment compensation could be restructured to reduce these bad incentives while actually increasing the protection that it offers to workers who are unemployed.

Our current system of unemployment has two distinct but related bad incentive effects. First, for those who are already unemployed it greatly reduces and often almost eliminates the cost of increasing the

[1] This could of course be done through a formula plan that tied the fiscal stimulus to changes in aggregate unemployment. This may not be advisable. Since unemployment rises after the level of aggregate demand has been falling for some time—as judged by hours, orders, et cetera—the unemployment compensation payments are inappropriately delayed.

period of unemployment. Second, and more generally, for all types of unsteady work—seasonal, cyclical and casual—it raises the net wage to the employee relative to the cost to the employer. The first of these effects provides an incentive to inappropriately long durations of unemployment. The second provides both employers and employees with the incentive to organize production in a way that increases the level of unemployment by making the seasonal and cyclical variation in unemployment too large and by making casual and temporary jobs too common. Both of these disincentive effects require further explanation.

A detailed example can be very helpful. Consider a worker in Massachusetts in 1971 with a wife and two children. He earns $500 per month or $6,000 per year if he experiences no unemployment. She earns $350 per month or $4,200 per year if she experiences no unemployment. If he is unemployed for one month, he loses $500 in gross earnings but less than $100 in net income. How does this occur? A reduction of $500 in annual earnings reduces his federal income tax by $83, his social security payroll tax by $26 and his Massachusetts income tax by $25.[2] The total reduction in taxes is $134. Unemployment compensation consists of 50 percent of his wage [3] plus dependents' allowances of $6 per week for each child. Total unemployment compensation is therefore $302. His net income therefore falls from $366 for the month if he is employed (i.e., his $500 gross earnings less $134 in taxes) to the $302 paid as unemployment compensation.[4] The combination of taxes and unemployment compensation imposes an effective marginal tax rate of 87 percent. The same very high marginal rate continues for several more months. If he returns to work after 1 month his annual net income is only $128 higher than if he returns after 3 months.

Moreover, part of the higher increase in income would be offset by the cost of transportation to work and other expenses associated with employment.

If the man does not become unemployed but his wife loses her job, the implied marginal rate may be even higher. If she is unemployed for 3 months, her gross earnings fall by $1,050 but the family's net income may fall by only $72. The fall in earnings reduces taxes by $297 while the unemployment compensation provides $525 in regular benefits and an additional $156 in dependents' benefits.[5] The effective marginal tax rate is over 93 percent. If the family has three children instead of two, the family's net income is actually higher if the woman is unemployed for 3 months than if she works for that period.

These astounding figures are not very sensitive to the specific details of the example. Extremely high effective marginal rates would also be implied if the man were not married, or if he were married but his wife did not work, or if his income were 30 percent higher or

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[2] All of these numbers are based on 1971 tax rates. The income tax assumes that the standard deduction is used.

[3] The compensation formula actually applies to his average earnings during the previous 52 weeks. The figures in the text ignore the waiting period of up to five working days.

[4] Unemployment insurance benefits are not taxable income.

[5] In Massachusetts the wife may collect dependents' benefits when her husband is still employed if she has previously listed the children as income tax dependents.

lower. In particular, a single man with earnings of $500 per month faces a 78 percent marginal rate. If he is married with two children and his wife does not work, his marginal rate is 84 percent. With a monthly earnings of $650, the married man with two children has an effective marginal rate when he becomes unemployed of 83 percent; if his monthly income is $350, the marginal rate is 87 percent. In every case, a middle or lower income individual loses almost no net income if he is unemployed for a short time. Only as incomes rise substantially does the net income loss become significant. For a married man with two children and monthly earnings of $900, the effective marginal rate when he becomes unemployed is 63 percent; with monthly earnings of $1,500 the marginal rate falls to 49 percent.[6]

In some industries the cost of unemployment is reduced further or even made negative by the supplementary unemployment benefits paid by employers under collective bargaining agreements. The effect of these is particularly important because it continues to apply on an earnings related basis even above the level at which the State unemployment compensation plans reach their maximum.[7]

How do people respond to these very high rates of marginal net unemployment compensation? The response does of course vary among individuals and differs according to specific circumstance. But the overall effect is almost certainly to increase the duration of the typical spell of unemployment and to increase the frequency with which individuals lose jobs and become unemployed.

Consider first the duration of unemployment. As we have seen, a man who normally earns $500 per month will lose only about $75 of additional net income if he remains out of work for 2 months instead of 1 month. Each additional week of unemployment costs him less than $20, substantially less if there are costs of traveling to work, union dues, and other expenses connected with employment. The unemployed person who does not expect to be recalled by his previous employer can expect to find a better job by searching and waiting for a longer time. Because the cost of additional waiting time and searching time is so very low, the unemployed worker is encouraged to wait until there is almost no chance of a better job. For example, since finding a job that pays as little as 5 percent more means an increase in net income of approximately $200 per year, even an additional 10 weeks of unemployment would pay for itself within a year. It is clear that an individual who is actively searching for a better job in this way is neither loafing nor cheating. He is engaged in trying to increase his long-run income. His search is economically rational from his personal point of view but inefficiently long for the economy as a whole.

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[6] The effective marginal rate for the unemployed falls as income rises even though marginal income tax rates rise because (1) the marginal rate of the social security tax is zero; (2) the unemployment benefits have a weekly maximum; and (3) dependents' benefits do not increase with income.

[7] A common form of these supplementary unemployment benefit plans is to provide a basic amount (including State unemployment benefits) of 60 percent of average pay plus a small dependents' allowance. For an individual who would otherwise pay 25 percent in Federal and State income tax and 5 percent in social security tax, these benefits reduce the cost of unemployment almost to zero. The effect is only slightly limited by the fact that the supplementary benefits, but not the State payments, are subject to income tax. There is a limit to the amount of supplementary benefits but the effect is still to bring the very high marginal rates to higher income workers.

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The unemployed individual loses valuable productive time in order to achieve a slight gain in future income because taxpayers provide a $1,000 subsidy during his 10 weeks of increased search.

Not all of the increased duration of unemployment is a search for a better job. When the return to work adds less than $20 to the week's net income, there is certain to be a strong temptation to use some time for doing repairs and other tasks at home or simply having a short period of additional vacation. Some who are waiting to be recalled to a previous job may also engage in casual work for unreported income. All of these temptations are likely to be even stronger when there is another person in the family who is employed. Glaring evidence of this type of voluntary unemployment are the "inverse seniority" provisions that are now part of the employer-employee agreements in several industries; these provisions give workers with more seniority the privilege of being laid off earlier than other workers and rehired later.

There are of course rules in our unemployment compensation system that are designed to limit the extent to which individuals voluntarily extend their duration of unemployment. A worker who is deemed to be unavailable for work or who refuses suitable employment may be disqualified from receiving benefits. Although this may prevent flagrant abuses and deter some from any voluntary unemployment, it is common observation that many who could find employment in their own line of work are able to continue receiving unemployment benefits. The employment service is limited in its ability to find suitable jobs for unemployed workers because it is only notified of a fraction of all openings.[8] Moreover, it is not at all difficult for a worker who is interviewed by a prospective employer to avoid being offered a job if he prefers to remain unemployed.

Longer durations of unemployment is only the first of the bad incentive effects identified above. The more general effect of unemployment compensation is to increase the seasonal and cyclical fluctuations in the demand for labor and the relative number of short-lived casual jobs. It does this by raising the employee's net wage for such unstable jobs relative to the cost to employers. This distortion in the cost of unstable employment influences the patterns of production and consumption in the economy. Because the price of unstable labor has been artificially subsidized, employers organize production in a way that makes too much use of unstable employment. Similarly, the economy as a whole consumes relatively too much of the goods that are produced in this way.

A worker who accepts a seasonal job knows that he will be laid off (or will have a much greater risk of being laid off) when the season ends. Similarly, a worker in a casual or temporary job or in a highly cyclical industry knows that he is much more likely to be laid off than a worker with a regular job in an industry that is not cyclically sensitive. If there were no unemployment compensation, workers could be induced to accept such unstable jobs only if the wage rate were sufficiently higher in those jobs than in the more stable positions in which they could find alternative work. The pay differentials among

[8] For example, in Massachusetts in the year ending June 30, 1970, there were more than 485,000 initial claims for unemployment compensation. There were however a total of only 272,000 referrals and only 132,000 placements.

jobs would reflect the chances of being laid off and the expected duration of unemployment after being laid off. The higher cost of labor in unstable jobs would induce employers to reduce the instability of employment by greater smoothing of production through increased variation in inventories and delivery lags, by additional development of off-season work, by incurring costs to improve scheduling, by less cyclical sensitivity of employment to changes in production, by the introduction of new techniques of production (for example, new methods of outdoor work in bad weather to reduce seasonal layoffs), et cetera. The higher wages in unstable employment would also increase the prices of the output produced by such firms and industries. The higher prices of these goods and services would reduce the demand for them. This would reduce further the amount of unstable employment in the economy.

In the absence of unemployment compensation, the amount of unstable employment would reflect the employees' balancing of higher wages and employment stability, the employers' attempts to produce at minimum cost, and the consumers' choice among goods and services at prices that reflect their cost of production. The effect of unemployment compensation is to offset the market forces that would otherwise prevent an excessive amount of unstable employment. Because unemployment compensation provides a subsidy to workers in unstable employment, it reduces the wage differential required to attract workers to seasonal, cyclical and temporary jobs. Because employers pay a relatively small premium for their unstable employment, there is little incentive to reduce this instability. Finally, the prices of these goods and services do not reflect the higher social cost of production with unstable employment. The taxpayers subsidize the consumption of those goods whose production creates the most unstable employment.*

To what extent are these harmful incentives offset by the current method of financing unemployment compensation through an experience rated employer tax? Employers contribute to the State unemployment compensation fund on the basis of the unemployment experience of their own previous employees. Within limits, the more benefits that those former employees draw, the higher is their own tax rate. The theory of experience rating is clear. If an employer paid the full cost of the unemployment benefits that his former employees received, unemployment compensation would provide no incentive to an excess use of unstable employment. Although money wages would not be substantially higher for such jobs, the total cost to the employer would be.

In practice, however, experience rating is a very imperfect check on the disincentive effects of unemployment compensation. There are three reasons for this. First, the extent of experience rating is limited by a maximum rate of employer contribution. In most States, the employer's contribution is based on a "reserve ratio" formula. The reserve ratio is defined by (CON–BEN)/PAYROLL where CON is

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* In describing the harmful effects of unemployment compensation, I do not wish to imply that these outweigh the benefits of the program. Unemployment compensation provides valuable support and security to millions of workers. The problem, however, is to redesign the system to preserve the advantages while reducing the harmful incentives. I will return to this below.

the employer's total contributions to the unemployment compensation fund since the system began, BEN, is the total benefits collected by the unemployed previous workers that were charged against his account and PAYROLL is the firm's average payroll (generally during the past 3 years). The higher the employer's reserve ratio, the lower his rate of tax. Most States, however, limit the tax to a maximum of 2.7 percent of the first $3,000 of each employee's annual income. The maximum rate applies when the reserve ratio is below some low level, generally 5 percent or less. In the long run, any firm in which average annual benefits generally exceed average annual contributions will pay the maximum rate of the tax. A firm in a seasonal industry that lays off 20 percent of its average labor force for 2 months each year will pay the maximum rate if the average wage of those laid off is equal to or greater than $500 per month.[10] More generally, using the 3-month mean unemployment duration and assuming that those who become unemployed had earned an average of $500 per month, any firm in which an average of 11 percent of the average labor force become unemployed each year will pay the maximum. A study of experience in Massachusetts found that in 1959 the maximum tax rate was paid by 31 percent of construction employers, 40 percent of apparel manufacturers, and 26 percent of leather manufacturers.[11] For any firm that already pays the maximum rate, there is no cost for additional unemployment and no gain from a small reduction in unemployment.

The second reason that the current method of experience rating has only a limited deterrent effect is that the relation between current layoffs and contributions is often quite weak. This is partly due to the use of the firm's entire experience since the beginning of the unemployment compensation system. Because the contribution rate reaches a minimum when the reserve ratio is above some level,[12] a firm that has paid contributions in excess of benefits for a long time will have a very high reserve ratio and a contribution rate that will not respond to a change in the layoff rate for a long time. The weak link between layoffs and the contribution rate is also due to the way in which the system pools all workers in the firm. A firm in which most employees are not subject to seasonal or cyclical variations can have high layoff rates for certain jobs and in certain product lines without increasing its contribution rate. For a large firm this is reinforced when there are relatively few reserve ratio levels at which the contribution rate changes; there is a substantial "notch" at these levels but no extra cost between them.

Even if there were neither a maximum rate nor a minimum rate and the contribution rate responded quickly and continuously to changes in the unemployment rate, there would still be a strong incentive for an excessive rate of layoffs. This occurs primarily because a worker who is temporarily unemployed avoids income tax and payroll tax at his maximum marginal rate on the lost earnings while

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[10] This understates the effect of the maximum rate since the maximum differential between the maximum rate and minimum rate is generally less than 2.7 percent.

[11] See Warden (1967) for a more general analysis of unemployment compensation and the experience in Massachusetts.

[12] In Massachusetts, a minimum of 0.5 percent is reached when the reserve ratio exceeds 10 percent. In other States, the minima vary between zero and 1.5 percent.

paying no tax on the unemployment compensation. Since the marginal rate for even relatively low-income families can be over 30 percent when Federal, State and payroll taxes are combined, the tax effect is quite substantial. In the example discussed above, a married man with a working wife and two children whose wage rate is $500 per month would receive only an extra $64 of net income by reducing his unemployment from 2 months to 1 month; if his unemployment benefits were taxed in the same way as other earnings, he would receive more than twice as much, $154. The $90 differential represents a current subsidy out of general tax revenues in addition to the unemployment compensation.

In summary, it is clear that our current unemployment compensation system provides incentives to employers and employees to behave in ways that increase the rate of unemployment in our economy. Although there have been no careful studies to assess the magnitude of these incentive effects, there is a variety of statistical evidence to support the common observation that these effects are economically important. Hall (1970) has shown that the number of weeks of unemployment per year declines sharply as the wage rate increases. Chapin (1971) has shown that mean durations are longer in States with more ample unemployment benefits. The very existence of the "inverse seniority" provisions shows that some workers value the opportunity to become unemployed.

The recent British experience is particularly interesting. Until 1966, unemployment insurance in Britain paid a relatively low flat rate benefit that was not related to the unemployed person's previous earnings. There was also an additional flat rate dependents' allowance. The "earnings related supplement," first payable in September 1966, provided for an additional payment equal to one-third of the claimant's previous average weekly earnings between £9 and £30. The maximum supplement was therefore £7. The total benefit is subject to a maximum of 85 percent of the average weekly earnings. The effect of the earnings related supplement was, in effect, to convert the British system from one with very low relative unemployment benefits for all but the lowest wage group to a benefit structure more similar to that in the United States.

In October 1966, 1 month after the change in unemployment insurance, British unemployment began rising dramatically. The number of registered unemployed rose from 340,000 in September to 436,000 in October and 543,000 in November. The registered unemployment rate for males rose from 1.6 percent in August to 3.3 percent in January. It is, of course, difficult to know how much of this increase should be attributed to the change in unemployment compensation. Other macroeconomic and tax policies occurred at approximately the same time. It is noteworthy, however, that unemployment rates above 3 percent had been seen only once before in the postwar period (during an unusually bad winter) and that such a rapid rise in the rate of unemployment had not been seen before. Moreover, the male unemployment rate has remained over 3 percent ever since then. The previous relation between the unemployment rate and the vacancy rate ceased to hold after 1966. An examination of the occupational composition of unemployment shows that the proportional rise in unemployment among skilled manual workers was greatest and among

the lower paid unskilled workers (who would benefit less from the earnings related supplement) was least. The increase among professional, technical and administrative occupations was also greater than would be expected on the basis of recent past recessions. A survey of unemployed workers designed to evaluate the effect of the earnings related supplement found a significant effect: an increase of £1 per week in the level of unemployment benefit tended to increase the length of unemployment by almost half a week.[13] Although there are problems in interpreting each piece of data on the British experience, the evidence as a whole clearly indicates that the new method of earnings related unemployment compensation has raised the level of unemployment.

There is little room for doubt about the qualitative conclusion that our current system of unemployment compensation increases the rate and duration of unemployment. Although the magnitude of this effect is unknown, it should be emphasized that rather small changes in the duration of unemployment, the cyclical and seasonal fluctuation in labor demand and the frequency of temporary jobs can have a very important impact on the overall rate of unemployment. A reduction of 2 weeks in the current average duration of 3 months would, other things equal, lower the overall rate of unemployment by 0.75 percent. If one-third of the seasonal unemployment were avoided, the overall unemployment rate would fall by an addition 0.25 percent. If the cyclical variation in labor demand were also reduced by 20 percent,[14] this would reduce unemployment by another 0.25 percent. A decrease in the number of casual temporary jobs would have a further impact. Although each of these changes is small, the total effect is a fall in the unemployment rate of more than 1.25 percent.[15] These numbers should not be interpreted as specific estimates of the extent to which our current system of unemployment compensation raises the unemployment rate. They should be viewed as illustrations of the powerful cumulative effect of small changes in the several sources of adult unemployment. It is quite possible, however, that the disincentive effects of our current system are responsible for at least this much increased unemployment.

The challenge at this time is to restructure the unemployment compensation system in a way that strengthens its good features while reducing the harmful disincentive effects. The virtue of our system is that it permits the family of a lower- or middle-income worker who is temporarily unemployed to maintain approximately its previous level of spending. Although the fall in net income is relatively greater among higher-income workers, almost all insured families are protected against a substantial change in net income. The disadvantage of our current system is that it raises the rate of unemployment and imposes an excessive welfare loss. This welfare loss occurs because the unemployment compensation system encourages each individual employee to act in a way that is in conflict with the interests of all employees as a group. More specifically, although most of the cost of

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[13] See MacKay and Reid (1972). Their methods seem likely to underestimate the effect.

[14] Recall that the postwar cyclical variation in British unemployment is substantially less than half the American experience.

[15] Adding the effects tends to overstate slightly the total effect since there is an interaction between the duration effect and the others.

the unemployment benefits and the reduced Federal and State tax collections falls ultimately on employees as a whole,[16] each individual employee is induced to behave in ways that increase this cost. It is rational for the unemployed individual to delay returning to work and for the jobseeker to give less than the correct weight to the risk of future unemployment. For the group as a whole, however, such behavior incurs costs that far outweigh the benefits. This is the essence of the welfare loss.

What could be done to reduce the harmful disincentives without losing the valuable features of unemployment compensation? Some gains could be achieved by removing the ceiling on the employer's rate of contribution and by lowering the minimum rate to zero. Employers would then pay the full price of the unemployment insurance benefits. The change in the rates of contribution would encourage employers to stabilize production and employment. It would also tend to increase prices for goods produced in firms with unstable employment. This would have the effect of shifting production to firms and industries with more stable employment.

Further improvement could be achieved if unemployment insurance benefits were taxed in the same way as other earnings. This would eliminate the anomalous situations in which a family's net income is actually reduced when an unemployed member returns to work. More generally it would significantly reduce the very high implicit marginal tax rates that an unemployed person faces when he considers returning to work. It would also end the distorting situation in which, for the same total cost to the employer, a worker with some unemployment during the year receives more net income than a fully employed worker. Since the lowest income families pay no income tax, the taxation of unemployment benefits would not be a burden to the poor. Even at higher incomes, the total effect on family income of taxing benefits would be small even though the marginal effect is sizable. In any case, the current system is inequitable in imposing a higher tax on an employed person than a person with the same net income and family circumstances who does not work the entire year.

A much more important reform could be achieved by shifting the basis of experience rating from the firm to the individual. This would have the advantage of making the individual consider properly the costs of a longer duration of unemployment and of a job with a greater risk of unemployment. One possible way of shifting the basis of experience rating would be to calculate a reserve ratio for each individual. The individual reserve ratio would be defined in the same way that it now is for employers: the difference between the cumulative contributions made and the cumulative benefits received by that individual, divided by the individual's recent covered earnings.[17] Each individual would have a prescribed contribution level based on his current reserve ratio. With individual experience rating it would be necessary to have a maximum rate of contribution.

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[16] The fact that the tax is nominally paid by employers is irrelevant. The variable rate makes the incidence issue more complex but the statement in the text is essentially correct.

[17] The additional administrative costs would be small in comparison to the advantages. Only 2 additional numbers, cumulative contributions made and cumulative benefits received, would have to be added to the individual's social security record.

There are a variety of possible ways to finance these contributions. One possibility would be to require that employers pay the maximum rate of contribution for each employee with the provision that the employee receives, as a wage supplement, the difference between the maximum tax and the contribution that is required on the basis of his own reserve ratio. A wage supplement based on the individual's past experience would have the effect of rewarding workers who have had shorter durations of unemployment and encouraging individuals to seek more stable employment.

Under this individual experience plan, an unemployed worker would receive benefits just as he does now.[18] However, the longer he remains unemployed, the more his own reserve position would fall. When he returns to work, he would receive no wage supplement or a reduced supplement until his reserve ratio reaches the appropriate level. The individual experience plan in effect provides an opportunity for an unemployed person to borrow against his future earnings (at a zero rate of interest). Because the individual will repay these benefits, it should be possible to raise the benefit rate in each income class and to increase the maximum benefit. Other special features, such as allowing workers to withdraw a lump sum amount to pay for moving expenses or to cover the costs of tuition in a private training program or educational institution, should also be possible. In short, by introducing individual experience rating into our current system, unemployment compensation can provide greater security without the current harmful disincentives.

There are, of course, a number of problems that would have to be solved in the design of a practical individual experience plan. Benefits would have to continue even after an individual's reserve is exhausted. Moreover he must not be permitted to have such a large negative reserve ratio that there is no incentive for him to try to raise his reserve position.[19] Some provision must also be made to reward retiring workers who have accumulated positive reserves. But these and other problems could be solved by balancing the objectives of income security and improved incentives. The result of doing so can be a more efficient economy and a much lower rate of unemployment.

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[18] The individual experience plan does not eliminate the desirability of taxing unemployment benefits.

[19] In particular, it might be desirable to maintain employer experience rating to avoid abuses in seasonal industries.

VI. SOME CONCLUSIONS AND RECOMMENDATIONS

The analysis of this report has been both pessimistic and optimistic. On the negative side, it was concluded that the average long-run employment rate probably cannot be lowered below 4 percent by expansionary fiscal and monetary policy alone while maintaining an acceptable inflation rate. A study of alternative policy simulations with an econometric model and a more detailed examination of the structure of unemployment showed that the overall rate of unemployment would remain high even in extremely tight labor markets that pushed the unemployment rate for mature men below historic lows. Although there is currently a cyclical excess of unemployment, the long-run problem is not a lack of adequate demand.

The prospect for improving the overall unemployment rate through specific employment policies is more optimistic. Substantial progress should be possible in dealing with the particular problems of young workers. A significant part of this unemployment is among new entrants to the labor force and others who are seeking their first full-time job. A special Youth Employment Service, firmly linked to the schools and primarily concerned with the transition from school to permanent employment, could have a major impact on unemployment in this group.

The problem of unstable employment among young workers is both more serious and more difficult to solve. Much of the unemployment among experienced young workers occurs not because jobs are unavailable but because they are unattractive. For many young workers, the available entry level jobs are also deadend jobs. They offer neither valuable training nor opportunities for significant advancement within the firm. Since employers have made no investment in these workers, they do not hesitate to lay them off whenever demand falls. Since comparable jobs are easy to find, these young workers do not hesitate to quit. The growth of our economy during the past few decades now permits relatively high wages even for those with entry level jobs. Among the young and single, these high wages encourage an increased demand for leisure. If the content of the job and the structure of the firm's employment policy do not outweigh this, job attachment will be weak and quit rates high.

The key to this problem is better on-the-job training and experience for young workers. Unfortunately, the current minimum wage law prevents many young people from accepting jobs with low pay but valuable experience. Those who come to the labor market with substantial skills and education need not be affected by the minimum wage. They are productive enough to permit employers to pay at least the minimum wage while also providing further training and opportunities for advancement. But for the disadvantaged young worker, with few skills and below average education, producing enough to earn the minimum wage is incompatible with the opportunity for adequate

on-the-job learning. For this group, the minimum wage implies high short-run unemployment and the chronic poverty of a life of low wage jobs. Reducing the minimum wage for young workers might be useful but it would not be sufficient. A more effective policy would emphasize Youth Employment Scholarships that temporarily supplement earnings and allow young workers to "buy" better on-the-job training. An Employee Investment Tax Credit could provide specific incentive to employers to reduce turnover and to develop opportunities for internal advancement for these young workers.

Better management of aggregate demand has a more important role to play in lowering adult unemployment than in improving the teenage employment situation. Nevertheless, even here macroeconomic policy can only achieve a small part of the total possible reduction in unemployment. The current study analyzed the implications of four different sources of adult unemployment: (1) the high cyclical and seasonal volatility of the demand for labor; (2) the weak labor force attachment of some groups of workers; (3) the particular problem of finding permanent employment for persons with very low skills and specific occupational handicaps; and (4) the unnecessarily long average duration of unemployment among job losers.

The American unemployment rate is not only higher than the rates observed in foreign countries but also much more cyclically volatile. A comparison with British postwar experience shows that most of the greater U.S. volatility reflects a more sensitive response of unemployment to changes in aggregate demand. The seasonal variation in employment is also substantially greater in the United States than in Britain. This contrast in the cyclical and seasonal variation in labor demand may reflect a number of institutional differences between the two countries. Within the American context, however, the current system of unemployment compensation is likely to increase substantially the extent of cyclical and seasonal unemployment.

Not all of the adult unemployment that can be described as the result of weak labor force attachment is undesirable. The ability of married women and of older students to enter and leave the labor force is a positive feature of our economy. The serious problems are associated with low-skill workers. Here nonparticipation rates are much higher than unemployment rates. The fact that these nonparticipation rates have continued to increase during periods of rising wages and tightening labor markets indicates that expansionary macroeconomic policy is not likely to reduce the current high rates of voluntary unemployment. The solution lies instead in manpower policies that can improve substantially the quality of available jobs plus changes in our system of incentives to encourage workers to accept full-time employment in the jobs that are available.

There are more severe problems for some workers with major physical, psychological or mental handicaps. Because of their very low productivity, these workers cannot obtain permanent work at the minimum wage that is currently established by law and custom. Section IV examines the proposals for permanent public employment and for wage subsidies to private employers. If earnings in the subsidized employment are limited to the prevailing minimum wage and if the wage subsidy is attached to the individual rather than to the specfic job, the system of wage subsidies could be a more effective and

efficient method of dealing with the problem of the very low-skilled worker. A third possible option, integrating the minimum wage law with income maintenance policy, is also described. By including both the market wage and an appropriate fraction of the annual public income maintenance payment in the definition of the minimum wage, the administrative problems of direct wage subsidies to employers could be avoided while still permitting those with very low skills to find permanent employment. Such an integration of the minimum wage and income maintenance would reinforce the desirable features of a negative income tax.

The final source of our high adult unemployment rate is the unnecessarily long average duration of unemployment. An individual's delay in returning to work generally does not reflect an inability to find any employment. Instead, the period of unemployment may involve searching for a better job, waiting to be recalled to a previous position without taking alternative temporary employment, or merely using the time for activities in the home.

Unfortunately, the current system of unemployment compensation encourages excessive delays in returning to work. For many lower- and middle-income families, the combined effect of unemployment compensation and income taxes is to reduce greatly, and often almost eliminate, the cost of remaining unemployed for an additional 1 or 2 months. For a majority of the insured unemployed, the effective marginal tax rate on the wages earned by returning to work is probably over 80 percent. As the examples in Section V show, it is not difficult to have a marginal rate over 100 percent; that is, to receive a higher net income by remaining unemployed than by returning to work, especially in a family with two earners.

Our current unemployment compensation system also provides both employers and employees with the incentive to organize production in a way that increases the level of unemployment by making the seasonal and cyclical variation in unemployment too large and by making temporary jobs too common. These important adverse incentives arise because, for all types of unstable work, the unemployment compensation system raises the net wage to the employee relative to the net cost to the employer.

Although the exact magnitude of the disincentive effects is unknown, it is clear that rather small changes in the duration of unemployment, the cyclical and seasonal fluctuation in labor demand, and the frequency of temporary jobs can have a very important cumulative effect on total unemployment. For example, a 2-week decrease in the current average duration of unemployment of 3 months would lower the overall unemployment rate by 0.75 percent. Equally conservative illustrative estimates of the potential reductions in cyclical and seasonal unemployment suggest that the current unemployment compensation disincentives may increase the overall permanent unemployment rate by at least 1.25 percent.

The current system of unemployment compensation should be reformed in a way that strengthens its good features while reducing the harmful disincentive effects. Eliminating the maximum and minimum limits on the rate of employer contribution and taxing unemployment compensation benefits in the same way as other earnings would substantially improve the incentive effects of the current system. A much

more important reform could be achieved by shifting the basis of experience rating from the firm to the individual. This would have the advantage of making the individual consider properly the costs of a longer duration of unemployment and of a job with a greater risk of unemployment. Because the switch to individual experience rating would significantly reduce the tendency to draw excessive benefits, it would be possible to strengthen the protection provided by unemployment compensation through raising the benefit rate and increasing the maximum level of benefits.

All of the analysis of the current study supports the conclusion that our permanent rate of unemployment can be lowered substantially. Reducing the rate below 3 percent and keeping it there permanently is a feasible target for economic policy. It is important to recognize that macroeconomic policy alone is unlikely to reduce the permanent rate of unemployment much below the 4.5 percent that has prevailed over the postwar period. Nevertheless, a series of specific policies could reduce the unemployment rate for those seeking permanent full-time employment to a level significantly below 3 percent and perhaps closer to 2 percent. Speeding the absorption of young workers into employment and stabilizing their employment through better on-the-job training could lower the overall unemployment by at least 0.5 percent. A restructuring of the unemployment compensation system could reduce the unemployment resulting from cyclical and seasonal instability and from unnecessarily long durations by an additional 1.25 percent or more. Further desirable reductions in unemployment could be achieved by wage or income subsidies for handicapped workers and others with very low skills. There is, in short, no need to allow the high rate of unemployment that has prevailed in the postwar period to continue in the future.

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COMMENT BY R. A. GORDON*

I

Professor Feldstein has written an interesting paper that is certain to stimulate discussion of a critically important problem. That problem has to do with the comparatively high level of unemployment that has persisted in the United States, particularly among the less favored segments of the labor force.

The author summarizes four "basic conclusions" in his introductory section. First, he states that "we probably can lower the permanent unemployment rate to a level substantially below the average of the postwar period." For "those seeking permanent full-time employment" it should be possible to get the unemployment rate down close to 2 percent. Here are two uses of the word "permanent," and I am not sure what he means precisely by either. The phrase "permanent rate of unemployment" also appears in the title of the paper. In my dictionary 'permanent" means 'remaining unchanged." This certainly is not what he means. Presumably he means the average rate of unemployment over a considerable number of years—say, a decade or more. Obviously, he is not considering how to bring about a satisfactorily low but *invariant* unemployment rate.

And when he raises the possibility of an unemployment rate of less than 3 percent "for those seeking permanent full-time employment," who, precisely does he include in this category? Has he in mind *everyone* who would like to work full-time, including teenagers and young adults, not excluding high school drop-outs? Is he including also all those discouraged workers who have dropped out of the labor force? And when he speaks of an unemployment rate of 2 or 3 percent, does he envisage that all of the employed labor force who want full-time jobs have them? In 1972, for example, there were 2.4 million nonfarm workers on part-time work for economic reasons, of whom a million usually worked full time.[1] The latter figure was more than a fifth of those officially counted as unemployed.

I completely agree with the author's second conclusion: that we are not likely to reduce the "permanent unemployment rate" to 2 or 3 percent "without significant changes in employment policy." These changes in employment policy, however, will need to go beyond merely the suggestions that he makes in the body of his paper.

I agree also that we cannot rely merely on expanding aggregate demand to achieve the desired reductions in unemployment without bringing about an unacceptable rate of inflation. Professor Feldstein does not consider, however, what might be done to influence wages and prices directly. His analysis is concerned entirely with what he calls "employment policy."

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[1] *Manpower Report of the President*, March, 1973, p. 162.

One can hardly quarrel with the fourth conclusion stated in the introduction. Lowering the overall unemployment rate will require a range of new policies aimed at reducing job turnover among youth, reducing seasonal and cyclical fluctuations in employment, and "increasing the speed with which the unemployed return to work." This is merely to restate the problem.

I turn now to the main part of his analysis.

II

The first main section of the paper seeks to discover how much we can reduce the national unemployment rate merely through expanding aggregate demand. I am quite prepared to accept the author's conclusion that the possibilities here are limited, although I am not much impressed by the procedures he employs to reach this conclusion.

I do not really know what to make of his simulations with the DRI model with wages and prices taken to be fixed. The equations in the model have been fitted to data covering a past period in which prices and wages were definitely not fixed. To assume constant wages and prices with the economy continuing to expand is to refer to a world that does not exist. How then can we draw inferences from this nonexistent world about the actual American economy of the 1970's?

I should also like to know about some of the other assumptions that enter into these model simulations. A footnote tells us that it is assumed that "the negative time trend for the unemployment rate for married men does not persist past 1972." Why? The ratio of the rate for married males to the overall rate rose sharply from 1952 to 1958 and then declined fairly steadily to 1969, after which it rose moderately as a result of the 1970 recession. What is a reasonable assumption to make for the rest of the 1970's? More important, what demographic assumptions are built into these simulations? Is adequate account taken of the large increase that will occur in the share of the labor force composed of 25–34 years olds (the teenagers of the last decade) and of the fact that the teenage share of the labor force will even decline moderately; also that the female share of the labor force is likely to increase much more slowly in the 1970's than in the 1960's? How much further will the share of the labor force composed of males age 35–64 decline?[2] What effect will these and other demographic changes have on relative unemployment rates? And what effect, and with what lags, will civil rights legislation and affirmative action programs have on the relative unemployment rates of women and minority groups? How do all these and possibly other changes affect our ability to bring down the overall unemployment rate through an expansion of aggregate demand?

I do not know the answers to these questions. But they need to be asked before we play with simulations of the sort that the author attempts.

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[2] For some estimates offering tentative answers to these questions, see my recently published paper, "Some Macroeconomic Aspects of Manpower Policy," in Lloyd Ulman, ed., *Manpower Programs in the Policy Mix* (Baltimore: Johns Hopkins Press, 1973), p. 45.

III

Let me turn now to the section entitled "The Structure of Unemployment." I applaud the author for concerning himself with the interrelations among unemployment rates for some of the major age-sex-color groups. But I can hardly applaud the simple, mechanical regression analysis that he employs to examine these interrelations. Simple regressions of sectoral unemployment rates on the rate for prime-age males badly confuses short-term and long-term relations and leaves at least this reader quite uncertain as to how to interpret his regression and correlation coefficients. To cite only one example, his equation 2.1 relates the male teenage rate to that for prime-age males, the regression being fitted for the period 1954–1972. He interprets both the constant and the regression coefficient on the male prime-age rate in the resulting equation as summarizing the way these two unemployment rates are related today and (presumably) how they will be related in the several years ahead. He completely ignores the change that has been occurring in the relationship between these two rates over the last 20 years, nor does he consider how and in what way this relationship may change in the future. The same criticism can be made of his other regressions. His equations for teenagers and adult females are strongly influenced by demographic trends and trends in labor force participation, and they can hardly be taken at face value in revealing merely cyclical relationships.[3] To cite one more example, we are told that one of the regressions "suggests that the female teenage unemployment rate is almost completely unaffected by aggregate demand." I recommend that the author look at the data. Using merely annual data for the business recessions since 1953, I find that the female teenage unemployment rate rose from 7.2 to 11.4 during 1953–1954, from 10.6 to 14.3 during 1957–1958, from 13.9 to 16.3 in 1960–1961, and from 13.3 to 15.6 in 1969–1970. Is this cyclical insensitivity?[4]

I can only agree with him when he comments that the "simple structure of these equations may produce misleading results."

Professor Feldstein's conclusion from the analysis in this section is that the "current structure of unemployment in the American economy is not compatible with the traditional view of a hard core of unemployed who are unable to find jobs." On the contrary, the duration of unemployment is typically brief. The trouble is primarily high

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[3] Somewhat belatedly, after presenting all his simple regressions, Professor Feldstein does recognize the effects of the postwar baby boom and introduces another variable to reflect changes in the teenage share of the population. He does this only for male teenagers. The result is sharply to increase the cyclical sensitivity of teenage unemployment and to convert a large positive constant into a significant negative one. He does not explain what interpretation is to be placed on such a negative constant.

[4] A scatter diagram in which the female teenage unemployment rate is plotted against the 25-and-over male rate for the postwar period reveals two quite distinct, approximately linear relationships, with the shift occurring at the beginning of the sixties. For the period 1963–1972, the relationship is quite close, but at a much higher level than for the 1950's. A straight line also fits the points fairly well for the period 1948 to the end of the 1950's. A similar shift in the relationship is also evident for male teenagers and for white and nonwhite teenagers. For both subperiods, the relationship is poorest for nonwhite teenagers, although the shift from the fifties to the sixties is still quite evident.

quit rates and frequent job changes. (To which might be added the considerable unemployment generated by the movement of teenagers and women into the labor force.) With all of this one can only agree. The "traditional view" he criticizes is not held by present informed observers. And his simple regressions add very little to our understanding of how unemployment is related to aggregate demand or why particular unemployment rates are as high as they are.

IV

This paper contains some useful suggestions for reducing the very high unemployment rates among young workers, particularly teenagers, although one can quarrel with particular points in the analysis. Essentially, the author recommends that we try some combination of the following proposals.

(1) A new state-operated but federally financed Youth Employment Service to provide counseling and placement services to youth, chiefly those who are about to graduate from or drop out of high school. This proposal is patterned after a similar British program that has apparently been quite successful. This is an excellent idea, but I should carry it still further. The counseling should begin long before graduation from high school; vocational programs, including those that provide actual job experience while in school, need to be improved and expanded; and local employers need to be brought into the schools in a variety of ways. The proposed Youth Employment Service could benefit all teenagers moving out into the full-time labor force, including those who will fairly quickly find "primary jobs."

Professor Feldstein's remaining—and more controversial—proposals are aimed particularly at youth suffering from a variety of handicaps who, under the present arrangements, are likely to remain more or less permanently in the secondary labor market, moving from one low paying job to another (and in and out of the labor force), and never receiving the training and experience that will qualify them for primary jobs. His three chief proposals are:

(2) A lower minimum wage for young and inexperienced workers.

(3) Youth Employment Scholarships, perhaps for the first year of full-time labor-force participation, as a supplement to wage income.

(4) Some form of incentive payments or tax credits to employers, based on their performance in providing stable, ladder-type jobs along with the training that such jobs would require.

There is a good deal to be said for a package of this sort. Perhaps the most controversial suggestion is the differential minimum wage for youth. Nonetheless, there is a good deal of evidence to suggest the need for a modification of the minimum wage along these lines—provided that work incentives are maintained, that employers are not permitted to abuse the system, that some form of supplementary income is provided according to a reasonable formula, and that the lower wages really do lead to the training and permanment jobs that are required. Professor Feldstein's other proposals are intended to insure that these conditions are met.

It is perhaps too much to ask, but what I miss are more detailed suggestions as to how these proposals might be implemented. The question of political feasibility is not mentioned. The problem of cost

is touched on but not dealt with in any detail. How large should the Youth Employment Scholarships be, and who should receive them? Is it necessary or desirable, as he suggests at one point, to offer them to all teenagers during their first year of full-time labor-force participation? (I do not think this is necessary.) And how do we ensure that employers actually provide the training, working conditions, and restructuring of jobs that are called for? Perhaps the Joint Economic Committee might commission a second study to secure detailed answers to these and related questions.

V

Let us turn now to unemployment among adult workers. Professor Feldstein deals with four sources of adult unemployment as follows.

1. *Cyclical and seasonal volatility of demand.* With respect to cyclical fluctuations in unemployment, I am prepared to accept most of what the author has to suggest, although I do not think that this takes us very far.

It is undoubtedly true that in Britain changes in employment and unemployment are less sensitive to year-to-year changes in output than is the case in the United States. While there is ample evidence that this is so, I again have difficulty with the simple regressions that the author uses to demonstrate the contrast. He ignores differences in the composition of output in the two countries and changes in the composition of output and employment over the periods of fit. Further, his British figures extend only through 1969 and omit the sharp rise in unemployment in 1970. Nonetheless, it is clear that employment has been less sensitive to changes in output in Britain than in the United States. Along with this relative stability of employment has gone labor redundancy, relatively low productivity, and a slow rate of growth.

Clearly the most important thing to do here is to reduce cyclical fluctuations in output in the American economy, which (along with the Canadian) is still the most cyclically volatile among the major industrial nations. I share Professor Feldstein's caution in making specific proposals to induce employers to retain redundant labor in times of slack demand. As he suggests, some steps can be taken through collective bargaining, and we can improve our income maintenance programs to take care of those who lose their jobs and are not adequately provided for by unemployment compensation (which, however, Professor Feldstein seems to think may already be too generous).

Let us turn now to the quite different topic of seasonal unemployment. This is clearly a subject on which Professor Feldstein has not done a great deal of work—either as to the types of seasonal unemployment in this country or as to what has been done to reduce this type of unemployment in other countries.[5] His estimate of the total amount of seasonal unemployment in the United States is of the right order of magnitude,[6] but he has little to say about the kinds of workers most subject to seasonal unemployment. He may or may not realize

[5] For references to some of the relevant literature, see Gordon, *op. cit.*, p. 25.

[6] I have calculated that seasonal unemployment accounted for about one-fifth of total unemployment in 1969, or about 0.7 out of a total unemployment rate of 3.5 percent. *Ibid.*

that the largest single contribution to seasonal unemployment in the last few years has been made by those with no previous work experience—nearly a quarter of the total; the second largest contribution, as we should expect, was made by construction workers.[7]

The way to reduce seasonal unemployment among the first of these two groups is to reduce search time for teenagers and young adults, and perhaps finding ways to spread through the year their shift from school to job search instead of concentrating this shift in June as at present. As for seasonal unemployment among construction workers, there are a number of things that could be done, including for example, the German program of Schlechtwettergeld and the Swedish system of not granting permission for public (including municipal) building projects during the summer.

2. *Weak labor force attachment.* Under this heading Professor Feldstein deals with the problem of declining labor-force participation and high unemployment among underprivileged adult workers in the secondary labor market, particularly blacks and members of other minority groups. This is a problem that is receiving increasing attention, particularly from younger economists. Unfortunately, it is also a problem that the present Administration seems to be trying to de-emphasize and for which it is seeking to shift more of the responsibility to state and local governments.

I have no quarrel with the author's brief treatment of this problem, except that again it is too brief and does not probe deeply enough. My main criticism is that he has nothing specific to propose. He has two suggestions to make: (1) "improved manpower programs," despite the admitted lack of success of past programs, and (2) "reexamination and redesign of the current adverse incentives." These broad suggestions hardly provide a useful guide to policymakers. And I miss any mention in this section of the possible contribution that might be made by a well designed, permanent, public service employment program. Public employment for "unemployables" is discussed in the next section, to which I now turn.

3. *The current unemployables.* These are the physically and mentally disabled, whose problems are frequently exacerbated by limited education. Three ways of securing employment for these disadvantaged workers are considered: subsidies to employers, permanent public employment, and a combination of a low minimum wage and income maintenance.

For a variety of reasons, I should prefer not to rely on government subsidies to private employers. As for public employment, I find that Feldstein's treatment leaves much to be desired. By public employment, he seems to have in mind something different from the public employment program initiated by the Emergency Employment Act of 1971, perhaps because he has in mind disabled workers. Otherwise I cannot understand his reference to public jobs as "unproductive." But he also argues against public employment programs aimed at reducing unemployment among physically able youth, women, and members of minority groups—i.e., so-called secondary workers. He seems to ignore the possibility of developing skills and satisfactory work habits in a public employment program or the possibility that

[7] *Ibid.*

such a program can in turn lead to primary jobs in either the public or private sector.

His final proposal is to "integrate the minimum wage law and the system of income maintenance." His proposal seems to imply both a differentiated version of a minimum wage and some form of a negative income tax, neither of which now exists. If something along these lines were to be seriously considered, it certainly should be framed with more than "the current unemployables" in mind.

Again this is an area in which we have much to learn from Swedish experience.[8]

4. *Duration of unemployment.* Professor Feldstein's brief discussion of this problem does not carry us very far. He has virtually nothing new to propose, and his brief discussion of duration in terms of averages and without any reference to past and prospective changes in the composition of the demand for and supply of labor leaves a good deal to be desired. Apparently, he would put a good deal of reliance on a less generous system of unemployment compensation as a way to reduce the average duration of unemployment. I therefore turn now to his long section on improving the incentive effects of unemployment compensation.

VI

The section on improving the incentive effects of unemployment compensation is the least satisfactory in the entire paper. The analysis leaves much to be desired; the recommendations for reform are very questionable; and I doubt that many informed students would accept the author's conclusion that "the current unemployment compensation disincentives may increase the overall permanent unemployment rate by at least 1.25 per cent." The following paragraphs do not exhaust all of my questions about this section of the paper.

First of all, the author badly exaggerates the extent to which those counted as unemployed in the official statistics are covered by unemployment compensation, particularly in prosperous years. In 1972, the number of insured unemployed under State programs averaged only about 38 percent of those counted as unemployed in the Current Population Survey. The national unemployment rate was 5.6 percent. In 1971, with a national unemployment rate of 5.9 percent, the equivalent percentage was as high as 43. In 1967, with an unemployment rate of only 3.8 percent, the percentage was about 40.[9]

Professor Feldstein, like all informed students of the causes of high unemployment in the United States, emphasizes the extent to which so-called secondary workers contribute to the level of unemployment—and that this problem has been becoming worse over the last decade. But a large fraction of these secondary workers—particularly the teenagers and women newly entering or re-entering the labor force—are not eligible for unemployment compensation. After all, in all 50 States, one has to have been employed for some minimum period to qualify for unemployment compensation.

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[8] See, for example, Bertil Olsson, "Labor Market Policy in Modern Society: With Particular Reference to Marginal Manpower Groups," in R. A. Gordon, ed., *Toward a Manpower Policy* (New York, Wiley, 1967), pp. 260–266.

[9] All data are from appendix tables in *Manpower Report of the President*, March, 1973.

The following detailed figures for an average week in the year 1967 will illustrate my point dramatically. The figures are in millions:[10]

All unemployed	3.0
Receiving unemployment compensation	1.0
Covered by unemployment insurance but not compensated	[1] .6
Previously employed but not covered	.4
New entrants and re-entrants (not eligible)	1.0

[1] Includes 0.2 million filing for noncompensable waiting period.

Thus only a third of the unemployed in 1967, on the average, received unemployment compensation.

I do not have comparable figures for a more recent year. Coverage was broadened in the Employment Security Amendments of 1970, which also made provision for extended duration on a triggered basis. But as I have already indicated, state programs covered only 38 percent of those unemployed in 1972.

In short, considerably less than half the unemployed, even in a year of relatively high unemployment like 1971, are covered by unemployment compensation.

It would appear that Professor Feldstein also exaggerates the disincentive effects for those unemployed persons who do receive unemployment compensation. While he is to be commended for bringing out the possible disincentive effects of having unemployment compensation exempt from federal and state income taxes, his arithmetic examples exaggerate the size of these disincentive effects.

First of all, his arithmetic calculations are based on the situation in only one state, Massachusetts. But there are 50 different state systems, and Massachusetts' is among the more generous ones. In 1970, the ratio of average weekly benefit to average weekly wage in Massachusetts was 0.372, compared to a national average of 0.357. The ratio of the *maximum* weekly benefit to the *average* weekly wage in 1971 was much higher—ranging from 0.525 to 0.78. In 1971, for the country as a whole, this ratio was less than 0.50 for about 65 percent of total covered employment.[11]

Second, Massachusetts is one of only 11 states that provides dependents' allowances. Inclusion of these allowances in Feldstein's illustrations, whether the husband or the wife is unemployed, further reduces the loss of income from being unemployed. And finally, his calculations are further biassed because he admittedly ignores the waiting period of up to five working days before compensation begins. This ommission is obviously important, particularly in his hypothetical case of one month's unemployment.

The author concludes that, under our system of unemployment compensation, the small loss of after-tax income from being unemployed almost certainly increases the duration of the typical spell of unemployment and "the frequency with which individuals lose their

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[10] The figures are taken from *Unemployment and Income Security: Goals for the 1970's*, A Report of the Committee on Unemployment Insurance Objectives sponsored by the W. E. Upjohn Institute (Kalamazoo, Michigan, Upjohn Institute, 1969), p. 11.

[11] See U.S. Manpower Administration, *Handbook of Unemployment Insurance Financial Data, 1938–1970*, p. 139, and *Summary Tables of Unemployment Insurance: Program Statistics, 1970–1971*, pp. 34, 38.

jobs and become unemployed"—thus raising the overall unemployment rate. I still have to be convinced that this was a significant effect of the introduction of unemployment insurance in the United States in 1935. Has the author studied Lebergott's estimates of unemployment among nonfarm employees for the decades before 1935? And is his conclusion consistent with relative postwar trends in the unemployment rates for different age-sex-color groups?

Another claim made is that unemployment compensation tends to increase the seasonal and cyclical fluctuations in the demand for labor and the relative number of temporary casual jobs. No factual evidence is presented. Instead it is argued that unemployment compensation, by providing a subsidy to workers in unstable unemployment, lowers wages in unstable occupations and industries below what they would otherwise be, reduces incentives to employers to stabilize employment, and subsidizes the purchasers of the goods and services produced by firms with unstable unemployment. Is there any evidence that a significant change in this direction has occurred in the last 30–40 years? Has the composition of output and employment been shifting toward sectors that are more volatile, cyclically and seasonally? I am not aware of the evidence pointing in this direction.[12]

I have said enough to suggest why I believe that Professor Feldstein greatly exaggerates the effect of unemployment compensation in increasing the rate and duration of unemployment—particularly in the last couple of decades in the United States. There may have been some effect. But this paper tells me little or nothing about the magnitude of this effect.

Several proposals are made "to reduce the harmful disincentives" of the system. I have no objection to removing the ceiling on the employer's contribution rate, but I do not agree that the minimum rate should be lowered to zero. I am not prepared to accept the proposal that unemployment compensation be taxed in the same way as earnings from employment. My objection here rests on two grounds. First, as already indicated, I think the author underestimates the loss of after-tax income from becoming unemployed. And, second, I think that he pays entirely too little attention to the psychological costs of becoming and remaining unemployed. Being employed in a decent job and able to support oneself and one's family by one's own efforts carries a large positive utility. The typical worker, particularly men and increasingly women, would rather be employed than unemployed even if there is no loss of income from being unemployed.

The proposal that the basis of experience rating be shifted from the employer to the individual seems to me to be entirely without merit—so much so that I suspect that I may not really understand what is being proposed. If I do understand it, then the author is apparently proposing that those workers who experience the greatest unemployment be further penalized by having their net wages (when

[12] With respect to seasonal unemployment, I might cite one piece of evidence in the opposite direction. Since 1960, there seems to have been some modest reduction in the seasonal fraction of total unemployment among *experienced* workers in the private nonfarm sector, but a large part of this improvement has been offset by the sharp increase in the proportion of total unemployment among those without previous work experience, for whom seasonal unemployment is very high—and who are not eligible for unemployment compensation. Cf. Gordon, "Some Macroeconomic Aspects of Manpower Policy," p. 25.

they are employed) decline relative to the wages of those workers who experience little unemployment.[13] Blacks, for example, typically earn lower wages and experience higher unemployment than whites. By shifting experience rating to the worker, let us widen this difference in wages still further! Underprivileged workers generally suffer from relatively low wages and high unemployment. Is it being proposed that their relative earnings be lowered still further?

So far as I can see, this proposal, if I understand it correctly, rests on two related assumptions. First, there are no barriers to mobility—among occupations, industries, and geographical areas—that the individual worker cannot overcome by his own efforts and with his own resources. And second, if we penalize harshly enough those who are most prone to unemployment (for whatever reason), they will somehow overcome these barriers and move into more stable jobs.

VII

Despite my many criticisms, I heartily concur with Professor Feldstein's final sentence: "There is, in short, no need to allow the high rate of unemployment that has prevailed in the postwar period to continue into the future." In my own work, I have suggested that an appropriate set of manpower programs might eventually permit us to set the full-employment target at an unemployment rate of about 3 percent.[14] I did not propose tinkering with our system of unemployment insurance, and I wrote before we began to experience the unwelcome combination of both high unemployment *and* an unacceptable rate of inflation. I am still hopeful, but I suspect that we shall need also to move much further in the direction of a permanent incomes policy than I once thought either necessary or desirable.

Professor Feldstein is even more optimistic. He seems to think that we can get what he calls the "permanent" unemployment rate down below even 3 percent. Apparently half or more of this improvement would come from revision of our system of unemployment compensation. I regret to conclude that, so far as I can see, he has failed to prove his case.

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[13] The author does not spell out the details of his proposal. He suggests that the maximum rate of contribution, which presumably would have to be raised, might be paid by the employer for each employee, with the latter receiving a wage supplement equal to the difference between the maximum rate and the contribution required on the basis of his own reserve ratio, the latter reflecting his particular unemployment experience. Workers with the most stable employment experience would receive the largest wage supplements. Since, on net balance, some wage supplements would be paid and no wages reduced, total contributions and total labor costs to the employer could presumably be higher than under the present system. Prices also would apparently be higher. Hence the proposal would presumably entail a reduction in the real wages of those workers with the worst unemployment experience.

[14] *The Goal of Full Employment* (New York, Wiley, 1967), Chap. 7.

COMMENT BY BENNETT HARRISON*

Introduction and Summary

In his extremely well-written paper, "Lowering the Permanent Rate of Unemployment," Martin Feldstein attempts to make use of some of the insights of "dual labor market theory" to analyze the causes of, and prescribe remedies for, the pervasive high unemployment in the United States. In the course of his research, he has produced some very useful statistical results on the consequences of labor market duality (or, more generally, "labor market segmentation" [1]).

I am in agreement with at least part of his suggested reorganization of the unemployment compensation system. In most other respects, however, I must take issue with the analysis and, more importantly, with the policy inferences which Prof. Feldstein draws from his research. In my opinion, he has misunderstood or misapplied the most important elements of the dual labor market theory. While he does recognize the existence of a "secondary labor market" of low-wage, inherently unstable jobs, to which large numbers of teenagers, women, and adult nonwhite men are disproportionately confined, his policy recommendations amount for the most part to suggestions about how to induce this segment of the labor force to be more willing to increase their attachment to such jobs.

Moreover, remarkable as it may seem, Feldstein hardly mentions race and sex discrimination as a major cause of the high unemployment of this class of workers, and he makes no suggestions whatever about reducing their unemployment through increased government sanctions on discriminating employers. I share with Barbara Bergmann [2] the conviction that discrimination in employment is manifested in the unwillingness of many employers to substitute persons other than white adult (mainly married) men (whom I shall hereafter designate as WAMM) for these "preferred" workers. This insubstitutability is only partly "rational," i.e. based on the technical or skill incapacities of the non-WAMMs (and where it *is* technical, training programs can remove the bottleneck). In either case, this insubstitutability creates the condition which Feldstein has so usefully quantified for us with the aid of the Data Resources econometric model: very low unemployment rates for WAMMs co-existing with extremely

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[1] The theory of labor market "dualism" is developed in Peter B. Doeringer and Michael J. Piore, *Internal Labor Markets and Manpower Analysis* (Lexington, Mass.: D.C. Heath, 1971), chs. 7–8; David M. Gordon, *Theories of Poverty and Underemployment* (Lexington: D.C. Heath, 1972); Bennett Harrison, *Education, Training, and the Urban Ghetto* (Baltimore: The Johns Hopkins Press, 1972), ch. 5.

[2] Barbara R. Bergmann, testimony before the Joint Economic Committee, *Hearings: Reducing Unemployment to 2 Percent*, 92 Cong., 2d Sess., U.S. Government Printing Office, 1972, pp. 37–52.

high rates for non-WAMMs, producing on the average a national unemployment rate which seems now to be "permanently" above 4 percent.

A number of Feldstein's arguments are based upon technical analyses which he himself qualifies. I wish to draw additional attention to these qualifications (and some others that I will introduce), for I think they are more important than is implied by the brief space they receive in the Feldstein paper.

Finally, I shall make the point that the problems of unemployment and poverty are inseparable, and that value judgments—*political choices*—are inescapable in this area. We can reduce measured unemployment significantly if we are willing to force the poor (of whom non-WAMMs constitute the overwhelming majority) to accept and remain in the millions of low-wage, dead-end jobs still available in our economy. Or we can try to fashion public policies which will transform these jobs through *economic development programs*. By upgrading the jobs, e.g. with technical and capital assistance to employers (coupled with tough sanctions on noncooperating employers), we can create an economic system in which no employer *need* pay poverty wages. Feldstein recognizes (correctly, I think) that it is their unwillingness to remain in such indecent jobs (combined with their employers' disinterest in worker stability) that best explains the high short-term unemployment of the non-WAMMs. But he then goes on to recommend policies designed in effect to change their attitudes toward those jobs. I would change the jobs themselves.

In short, Feldstein would focus policy attention on the workers; I would focus attention on their employers. He would attempt to induce different behavior on the part of the non-WAMMS; I would transform the economy so that no employer would need (or be allowed) to pay the kind of low wages that are responsible for that unstable behavior in the first place. He would reinforce the distinctions between WAMMs and non-WAMMs by creating special categorical placement and other manpower programs for the latter group; I would use equal employment opportunity enforcement with strong sanctions to prevent employers from distinguishing between WAMMs and non-WAMMs on any grounds other than technical insubstitutability (and in the latter case, I would design extensive on-the-job training programs to eliminate such insubstitutabilities as quickly as possible).

The choice, I repeat, is *political;* it is not something which can be settled by recourse to the outputs from anyone's econometric model. Moreover, the question of "which strategy is more efficient" (the sort of question that Senators and Congressmen often ask) is irrelevant here, since Feldstein and I are not addressing identical goals. His approach might reduce measured unemployment, but it would not materially reduce the underemployment, poverty, alienation, or anger of the millions of working poor in this country. "My" approach [3] is addressed primarily to the latter; I am really arguing that the best way to reduce unemployment in the U.S. is to eliminate poverty and at least the manifestations of labor market discrimination.

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[3] My position is, I think, representative of the views of a growing number of young economists, especially those associated with the radical economics movement. I should not like to claim undue paternity for ideas which have been "brewing" among a number of us for several years.

The Limited Effects of Increasing Demand

The policy simulations described in this section of the Feldstein paper are ingenious, and useful. The inflation-unemployment ("Phillips") tradeoff is assumed away (by constraining future prices to their "normal" path) in order to isolate the projected partial effect of increased federal spending (as much as $10 billion a year, which coincidentally is precisely the magnitude of the Cranston-Hawkins Public Employment bill) on the unemployment rates of WAMMs and non-WAMMs. Feldstein finds that no politically feasible increase in spending will drive the unemployment rates of the non-WAMM groups below 4 percent, although the unemployment rates of WAMMs got well below 3 percent. He concludes that undifferentiated, non-selective expansion of aggregate demand will not be sufficient to significantly lower aggregate unemployment.

This is certainly correct as far as it goes, but it doesn't go far enough. On page 4, Feldstein admits that "it is of course important to recognize that, like any econometric forecasts, the current analysis reflects all the shortcomings of an historically estimated model." This needs greater elaboration. The historical data from which the Data Resources model is estimated embody the discriminating behavior of employers, i.e. their unwillingness to substitute non-WAMM for WAMM labor inputs.

The model then tells us that, under fiscal stimulation, the market for WAMMs will become as tight as we could wish, but that non-WAMM labor "won't respond." But it is not that women, teenagers, and black men "won't respond"; it is that employers would prefer to bid away already-employed WAMMs from their present jobs rather than have to hire non-WAMMs.[4] Since this kind of employer behavior was in fact going on during the 1950s and 1960s, it is not surprising that the Feldstein model reflects it. Indeed, there is no way that the model could *not* reflect it.

In short, the conclusion that macroeconomic policy cannot reduce aggregate unemployment below 4 percent holds, *given* labor market segmentation. That is a crucial qualification.[5]

One further point: at the end of Part One, Feldstein refers obliquely to a public service employment program, but seems to dismiss it on the grounds that it "would have a much smaller impact on aggregate output" than federal purchases from the private sector. I do not understand why this is germane. Such a program (which I *strongly* support) would surely have a larger job-creation impact than any alternative

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[4] Since the WAMM labor market is already tight, this process bids up the wages of WAMM workers. If firms pass these cost increases along to their customers—as the "primary" firms which are most prone to discriminate in favor of WAMMs are powerful enough to do—then prices will rise as well. This is in fact the inflationary process that Phillips originally had in mind. And just as aggregate unemployment could be reduced by forcing employers to substitute non-WAMMs for WAMMs, so could inflationary pressures in the economy.

[5] Feldstein's equations could be used to monitor the impact of a program to reduce labor market segmentation. Thus, for example, progress would be reflected in equations such as (1.1) on p. 9 by the intercept term approaching zero in value over time, and by the slope term approaching unity.

measure.[6] And Feldstein himself admits (in the following sentence, on p. 9) that a public employment program would be less inflationary than any alternative approach.

The Structure of Unemployment

This section begins with a statement with which I am in complete agreement: "Decreasing the overall rate of unemployment requires not merely more jobs but new incentives to [1] encourage those who are out of work to seek employment more actively and those who are employed to remain at work * * * [2] an important part of these incentives is a change in the kinds of jobs that are available" (p. 11). Unfortunately, Feldstein's subsequent analysis continues to dwell on the first point while almost completely forgetting about the second.

The presentation of evidence that high turnover is now more important than a shortage of jobs per se in explaining the high unemployment rates of non-WAMMs is excellent. Even though there is some (very tentative) evidence that the importance of turnover in contributing to the intertemporal variance in unemployment rates is exaggerated by Feldstein and Robert Hall,[7] I think this is the best "working hypothesis" we now have. The discovery of the role of turnover (as opposed to so-called "hard-core" or long-term unemployment) is surely one of the main contributions of the dual labor market "school" of economists, the work of Peter Doeringer and others of this "school" having preceded the work of Hall and George Perry.

Feldstein's inferences from the regressions in table 6 suffer from the same problem as the one I discussed earlier: those regressions were fitted to data drawn from an environment of segmented labor markets. Therefore the conclusion that "the unemployment rates in certain groups are not only very high but are also quite unresponsive to changes in the aggregate demand for labor" (p. 12) must be qualified by the addition of the phrase: "*given* labor market segmentation".

The decomposition of unemployment rates in table 7 into such categories as "job losers" and "job leavers" implies a precision in the distinction between involuntary and "voluntary" unemployment which goes directly against the grain of dual labor market theory.[8] That "job

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[6] Bennett Harrison, testimony before the Senate Subcommittee on Employment, Manpower and Poverty, *Hearings on Comprehensive Manpower Reform 1972*, 92 Cong., 2d Sess., U.S. Gvt Prntg Off, 1972, pp. 1566–1618 (see especially pp. 1615–16); also Bennett Harrison, Harold L. Sheppard, and William Spring, "Public Jobs—Public Needs," *The New Republic*, Nov. 4, 1972, reprinted in U.S. Senate, *Hearings*, pp. 2451–57.

[7] Barbara R. Bergmann, "Labor Turnover, Segmentation and Rates of Unemployment: A Simulation-Theoretic Approach", University of Maryland, Project on the Economics of Discrimination, 1973, mimeo.

[8] In the Boston labor market study which initiated the "dualist" approach to manpower economics, Doeringer and his associates emphasized the ambiguity of the conventional categories: "in/out of the labor force," "voluntary/involuntary unemployment," etc. Peter B. Doeringer, et. al., *Low-Income Labor Markets and Manpower Programs*, U.S. Dept. of Labor, Manpower Administration, Research Findings No. 12, 1972. For example, low wage employers often cause workers to quit by providing no incentives for them to stay. Indeed, some employers actively *encourage* instability, perhaps to avoid having to grant pay raises, or to

losers accounted [in 1971] for less than half of unemployment and [that] quit rates generally exceeded layoffs" (p. 16) simply does not permit the inference that the high turnover exhibited by the non-WAMM labor force is the result of unstable personal behavior which public policy can (or should) change.

Unemployment Among Young Workers

The unstable nature of their jobs is, as Feldstein says, surely the dominant factor in explaining teenage unemployment. And I agree that, of all the groups within the class of non-WAMMs, teenagers are more likely than the adults to *prefer* unstable work (whether because they are still "shopping" for a line of work, or because they have other things to "take care of" before settling down to a regular, steady job). Nevertheless, many (perhaps most) teenagers *do* want to work.[9] Therefore, their scandalously high unemployment rates constitute an especially serious problem for public policy. Feldstein suggests that the measured rate probably exaggerates the severity of the problem, due to biases in the Current Population Survey methodology (in the CPS, a parent is usually reporting on the employment status of his or her children. Surveys which interview the teenagers themselves reveal only half as much unemployment). It seems to me that interviews with teenagers may be just as biased. Teens may report themselves "at work" or "looking" more often than do their parents because they (the teens) are more sensitized to and adept at conning the "Man" (i.e. giving the "correct" answer), or because they consider their hustling activities to be real jobs (which, to be truthful, they are!).

In any case, as Feldstein himself says, "the unemployment rates of those under 20 are much higher than they need to be" (p. 20). Part of the high turnover of this group is undoubtedly truly voluntary, but part is "a response to the unsatisfactory type of job that is available to many young workers. These are often 'dead-end' jobs, offering neither the opportunity for advancement within the firm nor training and experience that would be useful elsewhere" (p. 21). Again, I agree completely. How, then, can Feldstein—only two paragraphs later—suggest that "the single most effective way of reducing unemployment among new [teenage] entrants as well as improving the quality of first jobs would be the establishment of a special Youth Employment Service . . . [whose] primary focus should be an active program of advising and placing those who are about to leave [school]" (p. 21)? How will a streamlined placement program change the quality of the jobs in the

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deter unionization. My own research indicates that many ghetto dwellers move back and forth between (or are simultaneously engaged in combinations of) legal work in the secondary labor market, participation in paid training programs, enrollment on welfare, and illegal or quasi-legal hustling. Harrison, *Education, Training, and the Urban Ghetto*, ch. 5. Technically, the latter three activities are classified as "non-participation" in the labor force, or what economists conventionally call "leisure." In the present context, that word—and Feldstein's neat distinctions—are seriously misplaced.

[9] A steady, part-time job *is* regular work, and this is precisely the kind of job that many teenagers seem to prefer. Orthodox analysis gives short shrift to this category of work, i.e. voluntary part-time employment. Bertram Gross, Stanley Moses, Russ Nixon, and Larry Sawers are among the (very) few scholars studying this question.

secondary labor market? There is considerable evidence that the public schools and the Employment Service *already* serve as a placement mechanism for secondary employers.[10] Would Feldstein increase this implicit subsidy to low-wage employers?

He then goes on to make what seem to me to be two unwarranted assumptions: (1) that primary employers would list their vacancies with his Youth Employment Service (YES) (how? why? under what incentives? with what sanctions?); and (2) that teenagers passing through such a treatment will be more reconciled to the jobs they ultimately do get. Even if primary sector employers *did* list with the YES (and the Cranston-Hawkins bill *does* toy with the idea of a compulsory listing of vacancies by all firms), what is to prevent high school counsellors from continuing their present common practice of "steering" their students into different "tracks" according to sex, race, and class? [11]

Even more inconsistent with his earlier perception that the problem lies in the nature of the jobs is Feldstein's recommendation that Congress relax or otherwise surmount the minimum wage law for teenagers. He assumes that teens are highly unproductive, and are therefore expensive to employers (in terms of output foregone by hiring the teenager in place of an experienced adult). If employers could recoup their temporary losses by taxing the worker (or receiving a subsidy) in the amount of the foregone revenue (plus any cost of providing on-the-job training), then they would be indifferent between hiring teenagers (or other non-WAMMs; the logic applies to them as well) and hiring WAMMs. This would be beneficial to the teenagers, since they would then be receiving valuable on-the-job training and work experience. Thus, it is important to relax the minimum wage law for teens, one way or another ("another" way would be the provision of wage subsidies to employers, or "training vouchers" to new workers).

In the first place, Feldstein's assumption that primary firms would hire teenagers if it became profitable for them to do so is questionable. Previous wage subsidy programs (such as J.O.B.S.) have not been particularly successful. More fundamentally, Doeringer and Piore (whom Feldstein cites extensively in his paper) have shown [12] that primary firms with "internally structured labor markets" do not in general follow marginal pricing rules in designing jobs, setting pay scales, or recruiting and selecting new employees. If primary employers believe that teenagers (or other non-WAMMs) will not "fit in" (in terms of style and attitude, as well as productivity), then incremental subsidies are unlikely to persuade them to change their hiring behavior.

While the marginal firms in the secondary labor market probably *would* respond to wage subsidies or vouchers (just as they seem to be the ones who are most likely to respond to subsidies for locating in poverty areas [13]), these employers do not offer the kind of training or

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[10] Harrison, *Education, Training, and the Urban Ghetto*, pp. 145–50.
[11] Cf. Patricia Cayo Sexton, *Education and Income* (N.Y.: Viking Press, 1969).
[12] *Internal Labor Markets*, op. cit.
[13] Bennett Harrison, "Ghetto Economic Development," *Journal of Economic Literature*, December 1973, Part Five.

experience, attainment of which was Feldstein's objective in recommending the policy in the first place!

In the late 18th century, the British established a (short-lived) guaranteed minimum income, to be administered through the parishes. Shortly after the "Speenhamland law" was promulgated, private firms began to *cut their wages*, in a "rational" move to shift part of their labor costs onto the public purse.[14] Primary firms in the U.S. today would probably not attempt such a thing; apart from their great visibility, the fragility of their internal job and pay structures militates against such a drastic procedure. But *secondary* employers might well attempt such across-the-board pay cuts. If they did, Feldstein's subsidies/scholarships/vouchers would be inadequate the instant after they were introduced! The controls necessary to prevent (or at least moderate) such private sector wage reductions would be a bureaucratic nightmare.

The suggestion about providing incentive payments to firms, proportional in amount to the retention rates and wage increases of their young workers, seems free of this particular danger, and I think this should be examined further.[15] But I see no reason to expect that this would produce especially large results. Primary firms are not naive profit maximizers (so that the "incentive" may not be especially important to them), while secondary firms more closely approximate that model. But there is no payoff to "incenting" secondary employers to be more concerned about turnover, if our objective is to provide teenagers with on-the-job training and useful work experience, for these employers do not have such things to provide.

Sources of Unemployment Among Adults

Most of the analyses and policy recommendations presented by Feldstein in this section of his paper are subject to the same criticisms as those raised above. Let me briefly note some additional points.

Feldstein observes that lower unemployment rates in Europe and Japan may be attributable in part to the willingness of their primary employers to "guarantee" the jobs of their workforce throughout the business cycle (in Japan, some workers sign on with a company for life). Government, says Feldstein, should not attempt to legislate this kind of employment security in the U.S., first, because it is "inefficient" (and would therefore lower real wages), and second, because unions can take care of this in their collective bargaining agreements. I for one am intrigued by the possibility of legislating such "guaranteed job" arrangements (as opposed to "guaranteed income" plans, which run the risk of inducing another Speenhamland). Unions (only a minority of which might be powerful enough to wrest such a major concession from employers, anyway) represent less than a quarter of the American labor force. And in any case, the "inefficiency" of "hoarding" labor when production schedules call optimally for cyclical

[14] Karl Polanyi, *The Great Transformation* (Boston: The Beacon Press, 1960), ch. 7.

[15] I should point out that this was suggested six years ago by Lester Thurow; see his "Raising Incomes Through Manpower Training Programs," in *Contributions to the Analysis of Urban Problems*, ed. Anthony H. Pascal (Santa Monica, Cal.: RAND Corporation, August 1968), document no. P–3888.

cutbacks must be traded off against the increased equity attained by doing so.[16]

I can only applaud Feldstein's warning (on p. 33) that the officially defined unemployment rate is only the tip of the iceberg, and that for non-WAMMs, withdrawal from the labor force (e.g. through discouragement) is as important as nominal "unemployment." This is an area in which I have had an interest for a very long time.[17]

Several times in this part of the paper, Feldstein refers to the "unproductiveness" of public employment (cf. p. 36 and note 17, p. 37). I frankly do not understand this bias. Perhaps it results from a myopic view of public employment as largely bureaucratic "pencil-pushing" (in fact, more than half the jobs in state and local government are blue-collar or non-administrative service jobs). Surely Feldstein is incorrect in asserting (in footnote 17) that "public employment is unlikely to provide the kind of on the job training that could later be valuable in industrial employment", first, because there are many operative and technical jobs in government, and second, because the typical private sector job is no longer in goods production (which is how I suspect Feldstein intends us to interpret the word "industrial"), but rather in service production. Government employees produce services.[18]

The Unemployment Compensation System

I am sympathetic with Feldstein's criticism of the current unemployment compensation system. For those currently unemployed, it *does* reduce the opportunity cost of extending the period of joblessness (although it still does not reduce the social stigma of being without a job, at least for the working class, nor is there universal coverage), and it *does* encourage competitive employers (in the secondary labor market) to economize on capital, forego introducing technical improvements that might improve their ability to pay higher wages, and intensively employ low-skilled, unstable labor. As I suggested earlier, *all* income transfer systems which have the effect of enabling some workers to survive at low wages indirectly subsidize secondary employers, thereby reinforcing (institutionalizing) the existence of the secondary labor market.

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[16] I am impatient with cries of "inefficiency" on other grounds. The theory of the "second best" tells us that, if multiple "market failures" exist in an economy, the elimination (or correction) of one of them will *not* necessarily move the system closer to "bliss". Ours is an economy permeated with market imperfections; one need only start with the extent of oligopoly. In such an environment, it is rather unfair to select labor as the factor whose performance should be made to match as closely as possible the textbook model of perfect competition.

[17] Cf. William Spring, Bennett Harrison, and Thomas Vietorisz, "The Crisis of the Underemployed", *New York Times Magazine*, Nov. 5, 1972; reprinted in U.S. Senate, *Hearings*, pp. 2281–83. See also pp. 2276–2339 of the latter volume, dealing with the concept of "subemployment". Subemployment in the ghetto is the subject of ch. 3 of my Pennsylvania doctoral dissertation, *Education, Training, and the Urban Ghetto*, op. cit. See also Sar A. Levitan and Robert Taggert, "Employment and Earnings Inadequacy: A New Social Indicator," Center for Manpower Policy Studies, George Washington University, July 1973, mimeographed.

[18] Bennett Harrison, *Public Employment and Urban Poverty* (Washington, D.C.: The Urban Institute, 1971, paper no. 113–43).

The search theorists (such as Charles Holt and Feldstein) all want to make extended search more expensive to workers, thereby encouraging them to settle into a job sooner than they might have otherwise. By thus reducing the *duration* of unemployment, the overall average *rate* of unemployment will be reduced, also. But so long as the only jobs effectively open to non-WAMMs are in the secondary labor market, constraining their search time amounts only to pushing them back into the same class of unsatisfactory jobs more rapidly than would have occurred otherwise. Measured unemployment might fall, but the inequality in wage incomes produced by labor market segmentation would not be affected much (if at all).

Nevertheless, Feldstein would change the unemployment compensation system to penalize both workers and employers for indulging in excessive separation. He would do this by making employers pay the full cost of unemployment insurance benefits. Workers would "pay" in the sense that their "reserves" of U.I. "credits" (the amount of unemployment compensation to which they were entitled by law) would be drawn down with each separation. It is an ingenious scheme, and I think the imposition of full cost responsibility is an important precedent that needs to be established. I am therefore in support of this recommendation.[19]

Conclusion

I return to the main themes of my Introduction.

All of Feldstein's forecasts based on the analysis of historical data are subject to the qualification that they only hold, *given* labor market segmentation. Policies to increase the substitutability of WAMM and non-WAMM labor will go a long way toward reinstating the traditional relationship between aggregate demand and unemployment.

Given the ambiguity of categories of employment status in the real world (especially in the periphery of the economy), we must be cautious about inferring from evidence on what *appears* to be "voluntary" unemployment that the problem is the unstable behavior (poor motivation, etc.) of the non-WAMMs in the system. The instability of labor in the secondary labor market appears to be as acceptable, i.e. functional, to the employer as to the employee.

The omission from Feldstein's paper of any serious discussion of discrimination is remarkable. *Discrimination by sex, race, and class is surely the most obvious* (if not the most fundamental) *cause of the insubstitutability of WAMM and non-WAMM labor, and this insubstitutability is the key to understanding why we have such high unemployment* (even, as Hall puts it, when we are at "full employment"). Moreover, discrimination is remediable, although not by any of the

[19] I remain uncomfortable with the mechanism for making workers "pay". I am also skeptical of Feldstein's evidence that such a reform would make a significant difference, i.e. his finding that "the average duration of unemployment is very much greater among those unemployed who are eligible to receive benefits than among those who are not." As he himself admits, the duration of unemployment of the ineligibles may be understated, since these are the very people who are most likely to drop out of the labor force.

policies recommended by Feldstein. What is needed are strong equal opportunity programs, with teeth in them, combined with a far-reaching program of economic development to transform the structure of the secondary labor market (Doeringer calls this policy the "Japonization" of the American economy).

Our economy has a large secondary labor market of low-wage, inherently unstable, futureless jobs. By forcing (or "inducing") poor people to enter those jobs more rapidly, and to stay in them once they get there, we can indeed lower the measured rate of unemployment. Is that kind of "full employment" a proper object of public policy? This is a value—a political—judgment. For my part, the answer is a resounding "NO".

COMMENT BY CHARLES C. HOLT*

Professor Feldstein argues in his paper that the United States will not be able to lower its unemployment to an acceptable level simply by increasing aggregate demand, because if it tries to use that traditional approach to full employment, it will trigger off unacceptable inflation. However, by making structural changes in manpower policy, unemployment can and should be lowered significantly. I agree with that proposition, since research at The Urban Institute has led my colleagues and me to the same broad conclusion. Against this background of general agreement, I would like to examine some specific points of his analysis.

Feldstein makes an important contribution to critical economic problems by focusing attention on new structural policies that might be used. Unfortunately, his contribution is not likely to be appreciated, because few policy analysts on the political or economic scene appear to be receptive to what he is saying.

In this paper Feldstein faces the difficult problem of developing the reader's understanding of the *interaction* between macro economic problems and structural issues. At long last the Keynesian lesson has been learned—perhaps too well—by political leaders of both parties and the public: "Demand policies should be used to regulate the level of unemployment. When unemployment is excessive, increases in money demand should be used to stimulate the creation of jobs. But a limit to employment would ultimately be imposed by increasing inflationary pressures." Thus, when Feldstein discusses such structural issues as labor turnover, which are not *directly* relevant to the determination of aggregate demand, the action proposals to which he is led *appear* largely irrelevant to the lowering of unemployment. Lack of understanding of the implications of structural measures for aggregate demand policy is reflected in such assertions as "The Employment Service can't produce jobs, so don't expect it to lower unemployment." Such arguments rest on an implicit other-things-equal assumption, which is incorrect. Structural measures can be designed specifically to facilitate the noninflationary increase in demand. Improvement in the performance of the Employment Service could enable the number of jobs to be increased without being inflationary. There is, as yet, no agreement among economists on *exactly* how the trade-off between unemployment and inflation depends on the behavioral and institutional structure of labor and product markets, but there is a general, though vague, consensus that *improvements* in the trade-off require *changes* in that structure. This vagueness is not surprising, because the structural relationships governing employment and the wage-price change processes have not yet been adequately formulated, identified, and estimated. Until a new theoretical perspective on these relationships is developed, tested, and

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understood, policy recommendations aimed at structural changes will tend to fall on deaf ears. Fortunately, the search-turnover theory of the labor market is rapidly evolving to supply part of the conceptual framework that is needed, but much more understanding of the roles of market power by employers and unions and price dynamics is needed.

The connecting link between Feldstein's structural recommendations and aggregate demand is that improving structure will make it possible to increase demand and lower unemployment without inducing inflation. Unfortunately, the lack of quantitative knowledge about labor market structure makes it difficult to judge whether Feldstein has proposed the *most effective* structural improvements. However, the key to evaluating his proposals is in understanding the three-way *interaction* between inflation, unemployment and structural change. While the above is, I am sure, fully clear to Feldstein, he does not stress in his paper the extent to which his proposals are intended to facilitate increasing aggregate demand, either by directing it to the reduction of unemployment in a noninflationary way, or by reducing inflationary pressures. Stated another way, changes in aggregate demand are normally associated with movements along a Phillips curve. But structural changes that move the Phillips curve would in general necessitate a corresponding *change* in aggregate demand—other things would emphatically *not* be constant. The question of whether the long run Phillips curve is vertical or not is important in the formulation of aggregate demand policies, but it is largely irrelevant to the issues that Feldstein considers of improving the structure of the economy.

In Section I a large-scale econometric model is used to explore what would happen if wages and prices were somehow prevented from rising in response to increases in demand. While it is easy to delete equations from an econometric model and substitute external values for the associated variables, the resulting calculations are severely suspect. The specifications of econometric models are still sufficiently crude that we cannot be sure that the true structure is estimated. In a highly collinear world the explanatory variables in statistical estimates chronically act as inadvertent proxies for others. This may cause no great difficulty in making predictions if the *whole* model is utilized. However, when equations are simply excluded, there can be no assurance that the results can be clearly interpreted. Even though I would accept his conclusion that an undesirably high overall rate of unemployment is consistent with a low and inflationary unemployment rate for prime age men, Feldstein's methodology is quite risky.

When in Section II he linearly relates the unemployment rates of various demographic groups to the mature male unemployment rate, his estimates have no clear economic meaning.[1] No one would expect a causal relation and he develops no theoretical basis for this particular statistical relation. Again, his conclusion is undoubtedly correct that severe structural imbalances exist between the unemployment rates of different demographic groups. Estimated relations with aggregate unemployment or, better yet, with aggregate vacancies would have had a clearer meaning.

[1] Also, labor market theory suggests the greater relevance of logarithmic relations in this case.

The balance of the paper develops policy recommendations that are all relevant, reasonable, and stimulating.[2] Their critical quantitative evaluation requires more knowledge of the operation of labor markets than is currently available. Hence, they can only be discussed here rather generally.

That the unemployment rate of youth is relatively high is undeniable, and that this results from high turnover rates is well established. Much less clear is *why*. Is it because available jobs are unappealing, as Feldstein asserts, or that employers discriminate, that young workers explore jobs widely, that seniority blocks them out of good jobs, or that they cannot earn the minimum wage? Popular analysis now stresses the "good" and "bad" jobs of a dual labor market, but this appears much too simple. The segmentation of the labor market is many dimensional, not bisected, and there are reasons to expect all of the above factors to contribute to youth unemployment.

The recommendation of a Youth Employment Service could cause undesirable segmentation of the labor market as well as improving communications with youth. The proposal of a Youth Employment Scholarship program strikes me as "right" in terms of fairness for noncollege youth, social stability that would derive from the increased employment security of having marketable skills, and a healthy increase in human investment [3] at a critical point in the worker's life cycle. Unfortunately, I don't think that we have enough knowledge to be secure in recommending this program as the cure for high youth turnover. However, it should be one component in an effective program directed at youth unemployment.

If this skill training could be *quickly* responsive to help fill inflationary skill shortages so that demand could be increased, the program would have even more to recommend it. Young people have the greatest capability to be geographically and occupationally mobile, but this could be largely thwarted by a combination of seniority and age discrimination.

Feldstein's emphasis on work motivation, as affected by high effective marginal tax rates, is important in evaluating minimum wages and unemployment compensation. Both of these programs have long histories, but neither has received the careful research attention that has characterized recent analysis of income maintenance programs. These areas require critical reexamination.

Unemployment compensation, like Blue Cross medical programs, makes limited payments, but one can argue that the unemployment equivalent of medical disaster insurance would be even more important, since unemployment lasting more than a month can have disasterous consequences for family finances and well being. Also, long term unemployment ideally should trigger basic adjustment assistance in the form of training, mobility, counseling, etc.

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[2] For a similar set of proposals, see "Manpower Programs To Reduce Inflation and Unemployment: Manpower Lyrices for Macro Music," by Charles C. Holt, C. Duncan MacRae, Stuart O. Schweitzer, and Ralph E. Smith, The Urban Institute, Paper 350–28, December 1971.

[3] Feldstein makes passing reference to an Employee Investment Tax Credit. One might also recommend that corporations capitalize their training investments and show them as corporate assets on their accounting statements. This would raise the visibility of human capital.

While I would be inclined to agree with many of Feldstein's recommendations on unemployment compensation, his suggestion that experience ratings be applied to individual workers would not be sound if it goes so far as to require each worker to pay, in the long run, the full cost of his unemployment. We know that both losing and finding jobs involves large random risks and the insurance aspect of unemployment compensation should be preserved.

Feldstein recommends keeping programs for increasing public services separate from job creation programs for disadvantaged and handicapped workers. Although appealing in terms of logical purity and efficiency, such separation may weaken political support and increase program stigma for the workers being helped.

Feldstein's proposals involve a complex interaction between the conflicting objectives of equity in income distribution, income security, work and employment motivation, and compensation for handicaps. This makes the optimal policy resolution far from clear. Research and experimentation is indicated.

Over all, Feldstein's thoughtful study clearly illustrates the complexities of the structural changes that are needed in the manpower area. As long as the knowledge base remains shaky, different policy analysts will reach somewhat different conclusions, and these differences cannot be effectively resolved by debate. Even after the problems are fully understood, the organization of efficient operating programs for the delivery of services, payments, etc., poses additional subtle problems that will require extensive field experimentation.

Our continuing failure to formulate fully effective manpower policies and programs for resolving these structural problems puts macroeconomic policies in a no-win plight for which we are paying dearly in recurring inflation, unemployment, lost production, and poverty. The government has not organized adequate manpower research and program experimentation to answer the issues that Feldstein raises. The same point is equally true for the other major policy strategies that might be used for coping with inflation.

COMMENT BY HYMAN B. KAITZ*

The following comments on the Feldstein report do not claim to be comprehensive or exhaustive. In general I suggest a reasonable amount of humility in this report, and parenthetically for many other students of labor force analysis. There is much we do not know about the dynamics of the labor force; the discipline of economics is an incomplete instrument for adequate research here. In addition, objectivity is rare, since many writers including the author of this report appear to have some predispositions and preconceptions in their writing. This and other studies of unemployment are also incomplete, since there are many people not classified as unemployed who must be considered since they have a potential role vis-a-vis the labor market even though they may not engage in any overt job-seeking at a given point of time.

Part of our humility must arise from our observations that the nature of the labor market and of labor force behavior has been changing over the years in ways only imperfectly anticipated. For example, labor force projections have had only a mediocre success at best. In addition, relationships among quantitative measures of labor force behavior typically exhibit many unsatisfactory characteristics (some examples in the Feldstein report are cited below) indicating that there are significant aspects to these relationships for which we have not accounted.

Our lack of adequate understanding of the workings of the labor market should make us correspondingly modest in proposing policies of various kinds for the Federal Government to reduce unemployment. There are by this time some examples on hand of the lack of success of past Federal programs. This is not to imply that all Federal programs are poorly designed, but that plans and subsequent realization and implementation do not always conform to one another. Feldstein is very critical of the unemployment insurance program which has been in operation for over thirty years, but his suggestions for reform must be viewed with some reservations at least for the reason cited above. More specific comments on his policy proposals appear below.

A number of other comments deal with technical errors or deficiencies in the report. Many of these could be corrected without altering the basic structure of the report. Nevertheless, such corrections will, in some instances at least, diminish the force of the argument at that point in the text, a diminution which I believe is justified.

Finally, the Feldstein report inadequately recognizes the heterogeneity of the unemployed, of jobs and of labor markets. Implications that the young unemployed, or adult male unemployed, are homogeneous, with the same motivations, same interests, same opportunities in the labor market, make it possible to describe their behavior in a

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simplified way with a casual type of analysis. Some brief references to the dual labor market do not answer this criticism.

Specific comments are given below in numbered sections.

1. Footnote 6 to chapter I says: "The DRI model was modified . . . by assuming that the negative time trend in the model's equation for the unemployment rate of married men does not persist past 1972. Failure to do this would further lower the married men unemployment rate in future years relative to the overall unemployment rate." This explanation is forthright, but the ad hoc decision to alter the equation has no rationale apart from convenience. How can we trust the projections based on this altered equation? The basic relationship is apparently inadequate.

2. Equation (1.1) is obviously imperfect, and I expect that the Durbin-Watson coefficients, which are not shown here or elsewhere, would reflect this imperfection at least in part. This relationship should take into account, at the least, the changing proportions of demographic groups in the population.

3. One example of Feldstein's perspective on unemployment is given in the following quotation: "A more accurate description is an active labor market in which almost everyone who is out of work can find his usual type of job in a relatively short time . . ." This kind of exaggerated statement occurs elsewhere in the report, and some additional examples are cited below. It ignores the segmentation of local job markets mentioned earlier, discrimination among various groups, of which there is no lack of documentation, of possible mismatches between the skills of the unemployed and those required by the available jobs.

4. The duration of unemployment is an important characteristic, and quite relevant to the discussion in this report. However, much of this discussion is ambiguous since it does not distinguish between the cross-section duration (duration of the currently unemployed up to the reference week) and duration of completed spells which is the more appropriate measure, but is not directly available from published data and must be deduced from them. The two duration distributions are sufficiently different from each other so that they cannot be used interchangeably. The derivation of the distribution of completed spells is given in an article, "Analyzing the Length of Spells of Unemployment." in the November, 1970 *Monthly Labor Review*. For example, while about half of the unemployed have been unemployed less than 5 weeks up to the reference week (cross-section), the completed spell distribution shows that almost three-fourths of completed spells are less than five weeks in duration.

Several pages later in the report the following statement occurs: "New entrants to the labor force in 1971 spent an average of 9.1 weeks until their first employment." Again this is a cross-section average, and not the appropriate one to use. The true average of completed spells, as noted, is significantly lower. In this case it is probably between five and six weeks. However, spells of unemployment can be terminated in either of two ways: by finding employment, or by withdrawing from the labor force. Among teenagers who constitute a large proportion of new entrants, unemployment spells are terminated in many instances by withdrawal from the labor force for such reasons as return to school or other activities. Footnote 20 on a later page

says that the cross-section and completed spell duration distributions are about the same. As indicated above, this is not the case at all. The average duration of completed spells is about three-fifths of that of the cross-section duration distribution. In the adjacent text, the statement is again made that this average tells us how long people have been out of work. If the correct average is used, it would still have to be described as the length of time people have been out of work *and seeking work.*

5. The discussion of equation (2.1) which compares percentage point (absolute) changes in the teenage unemployment rate with the adult male unemployment rate may be misleading, unless one knows that the teenage rate is about five times as large as the adult male rate. Using these levels as a basis for comparison, we find that for every one percent change in the adult male rate, the teenage rate changes by 0.28 percent. In relative terms, the teenage rate has only a small sensitivity to the business cycle (assuming the adult male rate to be a proxy for the latter.)

6. Unfortunately, through no fault of Mr. Feldstein's, the whole Parnes longitudinal analysis should be deleted from this report. Recent information indicates that coding errors in the Parnes data have made the unemployment rates for teenagers lower than they should be, and lower than they will be after these data are revised. Advance indications are that these revisions will be substantial. As a consequence, the comparison between the Parnes data and CPS data will not stand up. It may be that the Parnes unemployment rates will still be lower than CPS rates, but the discussion in the text will not have the same force as it now has.

7. Feldstein recommends formation of a Youth Employment Service "separate from the regular Employment Service." He refers to the British model for guidance. He should be aware that the British are now altering their system. Their report: "People and Jobs: a Modern Employment Service" of December, 1971, says: "The present arrangements are becoming increasingly unsatisfactory. A division of responsibility between the Youth Employment Service and the adult employment service based on age is becoming less than appropriate as some people continue education to a later age. The time has come for a more natural and more flexible division of functions." I will not quote more, but indicate that the United States has been considerably ahead of the U.K. with reference to the proportion of people who continue education to a later age. The flexibility the British are seeking is one which should be a part of Feldstein's recommendation, rather than the earlier British model.

In general, careful thought should be given to recommendations about the role of the Employment Service. It has limited rapport with employers, partly on historical grounds, and partly because of the role of the Employment Service in recent years when it was concentrating on services to the disadvantaged instead of on placements of non-disadvantaged workers.

8. In section III on unemployment of young workers it says that "the hard economic reality [is] that firms cannot afford to offer useful on-the-job training to a broad class of young employees. A firm can generally provide the opportunity to acquire new marketable skills—by on-the-job training, detailed supervision, or even through learn-

ing by experience—only to a worker whose net product during the period of training is at least equal to his wage." During the time of Charles Dickens (and much later also) young people had to pay to take jobs in firms where there was some prospect of a future. In recent years, I suspect that the reverse has often been true; that shortage of workers in the late 1960's led to the hiring of many young people whose marginal product was less than their wage. Both economic conditions and the social milieu must be kept in mind. There are many noncareer jobs (the ones most likely to be available at low wage rates), such as dishwasher, where the relationship between the marginal product and the wage rate is complicated by the casual relationship between the employer and his employees, with high turnover rates and absentee rates in consequence. Inferences about minimum wage rate effects here are quite uncertain.

9. "For the disadvantaged, the minimum wage may have the ironic effect of lowering lifetime incomes by a very large amount." I think this is a rather questionable generalization, and could only stand up if the employment offered at low wage rates proved to be useful and helpful experience in subsequent work careers at higher wages and better jobs. For some workers this might be true, but I expect the more likely situation both in the past and at present is that these low wage jobs would lead to nothing much in career development. The disadvantaged are and have been affected by discrimination of various kinds, and there is little evidence that such discrimination would be reduced in hiring a 25 year old black at a good job, if the employer knew that he had been employed since the age of 16 at a variety of unskilled jobs paying low wages. The disadvantaged young have for the most part tended to grow into disadvantaged adults regardless of their work backgrounds.

In the subsequent text in Section III, the elaboration of detail on how more youth might be employed is too gimicky. The fact that prior programs have had only a limited success at best does not make for optimism in viewing other suggestions for programs which differ essentially in detail rather than substance from previous programs. Incentive payments are also suspect. In operation, such devices are found to serve purposes for which they were not originally designed.

10. In Section IV, equations (4.1) and (4.2), to be properly interpreted, should have the percent change, rather than the percentage *point* change in unemployment rates. It is clear that the lower UK rate would yield a percent change closer to that for the U.S. than is indicated by the comparison of percentage point changes. In addition, the lower R^2 for the UK indicates that there is less simultaneity of response in the UK than in the U.S. This, alone, would tend to reduce the size of the b coefficient in the UK equation. If there is a difference in business cycle phasing of unemployment and industrial production in the UK, this should be looked at. The discussion in this section appears to be incomplete.

11. Section IV: "Seasonal unemployment is clearly not involuntary." This is another example of Mr. Feldstein's perspective. Undoubtedly there are some people for whom seasonal unemployment is voluntary, but there are enough counterexamples to make this statement weak and narrow in scope. At the beginning of Section V, another such statement occurs: "Almost every unemployed person can now find a

job in a very short time." Is it necessary to take issue with this statement, or should one rely on the good sense of the reader to reject it out of hand?

12. Section V on unemployment compensation deserves a more extended critique than is offered here. For one thing, the "usual assumption" about unemployment compensation in reducing unemployment is not the usual assumption, which is that it replaces some of the wage loss of unemployed workers. The countercyclical effects of income flows, while important, is secondary. There is an extensive discussion of Massachusetts, one of eleven States with dependents' allowances. The Massachusetts law is one of the most liberal of these. I think it is fair to say that for some workers, disincentives to find work more quickly are present. However the relationship between weekly wage prior to unemployment and the unemployment compensation weekly benefit amount (the latter is supposed to be equal to about half of the former) breaks down at the maximum weekly benefit amount (wba). In other words, beyond a certain weekly wage (or specified fraction of high quarter earnings) claimants will receive no more than the maximum wba. Hence, in a State with a $50 maximum wba, a worker who had received $200 a week will only be getting one-fourth of his gross wage rate. This is a small disincentive to return to work. In 1968, 46 percent of all beneficiaries were entitled to the maximum wba. In 13 States in 1964, 60 percent were at the maximum. I expect that later statistics are not much different. In addition 15 percent of claimants who have monetary determinations made are found to be ineligible to receive benefits. These undoubtedly include many people with seasonal or casual attachments to the labor force, and I suspect, the ones most likely to be subject to disincentives if they could have received benefits. I cannot support this suspicion however.

I do not doubt that the effects Feldstein talks about are real, but I believe he exaggerates their effect on unemployment. However, because income taxes are now important, but were not when the unemployment compensation program began, it may be that benefits should be taxable. However, this suggestion must be qualified, since fringe benefits have also become increasingly important over the years, and money wage is no longer an adequate measure of regular compensation.

The reasoning in this section about what jobs a worker will take is rather simplistic and unrealistic. In many labor market areas, and in many segments of other labor market areas, there are workers who either take seasonal jobs or none at all in their skills. Some of these workers will be able to claim unemployment benefits when laid off, but others will not have had monetary eligibility. All States have provisions designed to reduce the incidence of seasonal claims, although these provisions operate imperfectly. In addition, many laid off workers go to work elsewhere. It would be interesting to see what evidence could be adduced to show what workers in seasonal industries did before the advent of unemployment insurance. The reasoning that employers faced with higher costs would tend to smooth production and stabilize employment is a hope, only marginally realized. Employers use any devices available to them to keep costs in line, including government subsidies, and tax loopholes which they would seek. The his-

tory of experience rating for employers, a topic discussed in this section, is a prime example of how good but simple economic reasoning is ultimately overwhelmed by the complexity of human behavior.

The discussion in the text of experience rating makes this tax system appear more restrictive than it really is, largely because the specifications given are out of date. The Federal taxable wage base is now $4,200. Five States have taxable wage bases above this, ranging from $4,500 in North Dakota to $7,200 in Alaska. In addition, the maximum tax rate is not 2.7, but ranges, under the most favorable schedules in individual States (when the State reserves are high) from 2.8 in Rhode Island to 6.0 in Michigan. At least 30 States have these higher maxima. Nevertheless there is a time lag between the higher unemployment benefits charged to a firm, and the increase in the tax rate for that firm. Experience rating laws are also riddled with special provisions which operate to reduce the relationship between benefits charged and tax rates, for both good and bad reasons.

Mr. Feldstein has a telling comment in this section: "Chapin (1971) has shown that mean durations are longer in States with more ample unemployment benefits". What are the facts? Chapin found in cross-section analysis among States that the average duration was related to the maximum duration of the State law. The longer the maximum duration, the longer the average duration. Unfortunately, Chapin's study is seriously defective. It can easily be shown that the average duration is *arithmetically* related to the maximum duration, since the average can only be based on weeks of benefits received up to the maximum. Hence, if the maximum is raised, ceteris paribus, the average will also rise, and *this has nothing to do with incentives to remain unemployed.* Feldstein's inference, here and elsewhere is that higher benefits imply longer duration. This means that unemployment should be shorter for high wage claimants, whose benefits are a smaller percentage of their net wages, and longer for low wage claimants with higher replacement percentages. However, the percentage of long term unemployed among the insured unemployed in the professional, technical and managerial categories has generally been as high or higher than the percentage in the industrial categories (28.5 percent as against 16.7 percent in January, 1972; 29.4 versus 28.7 in April 1972; 33.0 versus 27.8 in June, 1972).

With respect to suggestions for reducing seasonal unemployment, no industry has been studied more carefully than the construction industry. Studies of ways of reducing seasonality in this industry have been made at least since the 1920's in Germany, the United States, and Canada, among others. These studies have been directed at reducing the total costs of construction. The end results up to this time seem to be rather marginal.

I don't think the suggestion for shifting the basis of experience rating from the firm to the individual should be taken seriously. However, it is consistent with some of the other statements throughout this report which appear to suggest that unemployment is essentially voluntary, that a worker is responsible for his own unemployment, that he can make his choice between working or not working, or between working on one job or another job. If this concept were valid, then one should argue for much tighter curbs on unemployment insurance than does Mr. Feldstein.

The fact that the tax is paid by employers is not irrelevant, as Feldstein suggests. Employers have lobbied, individually and through associations, fiercely against increases in taxes throughout the history of the unemployment insurance program. They must obviously feel that they are affected by it. I am more impressed by their behavior, than by the inferential analyses of economists studying the tax incidence.

13. The conclusions and recommendations in the final section of the report have already been commented on here to some extent. However, I would like to offer some general comments as well. The basic premise of this report seems to be that unemployment per se, is bad. As a result, all sorts of proposals which would reduce unemployment, from lowering (or not raising) the minimum wage to more restrictive unemployment compensation provisions are put forth. However, if one accepts the idea that workers stay unemployed longer because of unemployment benefits, then unemployment cannot be bad from the worker's perspective. So the argument must turn to whether the economy is worse off with unemployment benefits than with people working perhaps at unsatisfactory or marginal jobs. I suggest that the basic premise of reducing unemployment be reexamined more carefully. One should keep in mind the fact that in 1972, for example, 44 percent of 16–19 year old unemployed were looking for part-time work, and 20 percent of adult women were looking for part-time work. Also, in 1971 (the latest year for which I have this information), 23 percent of all job-seekers, 16–24 years old, were looking for temporary work. A considerable number of people in the labor force, particularly young people, have a casual attachment to the labor market, associated with a high degree of mobility. Is this mobility, this experimentation among many workers, a good or bad thing? I would be very cautious about instituting government programs which changed this pattern of mobility in the interests of reducing unemployment for that part of the labor force which was not in deprivation or, need. For those in need, with presumably other incentives, a separate study should be made.

COMMENT BY FRANK C. PIERSON*

The report by Martin Feldstein is addressed to three crucial issues in the continuing debate over the prospects for unemployment in this country: (1) whether the unemployment rate can be reduced much below 4.5 percent by expanding aggregate demand even if the inflationary effects of such an expansionist policy are disregarded; (2) how the structure of unemployment that has emerged since World War II in the United States and the persistently high level of unemployment that has characterized this period are related to one another; (3) what policy measures are called for to deal with this aspect of the unemployment problem. Despite the rather assured tone of his report, Professor Feldstein would doubtless be the first to admit that his findings are highly tentative and may be considerably revised if, as I hope is done, a fuller analysis is undertaken. Since my discussion is chiefly concerned with how the present report might be improved on the assumption a further analysis is planned, I shall concentrate on what I consider to be the report's major weaknesses.

I

In studying the employment effects of macro-demand expansion policies, Feldstein uses the well-known Data Resources (DRI) model, or, more accurately, one of the later versions of the DRI long-term growth model, to predict what effects a policy of sustained fiscal stimulus would have on the unemployment rate, assuming the policy did not induce any additional inflationary tendencies. Unless he is using a version of the model unknown to me, I think this first and basic step in his analysis is open to serious question. The DRI model is a large, econometric system used for analyzing broad, macro-economic relationships. Applying a macro-model of this sort to the economy, particularly to the intricate interactions linking labor markets to the rest of the economy, is a most hazardous undertaking. This applies with special force, of course, to simulation predictions, such as those shown in table 2 of the report, which compare unemployment outcomes for particular groups in the labor force.

No less important, it is my understanding that the long-term DRI model is a demand model embodying essentially the same relationships, and based on essentially the same assumptions, as the DRI short-term model. This means that the principal findings of this part of the report were reached before the investigation was begun in the sense that the relationships between unemployment rates for different groups in the short-term model were assumed to remain unchanged in the long-term model.

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This assumption is certainly questionable; indeed, is it not the central question which Feldstein is examining? In the short-term, a demand model embodying a set of linear relationships is a valid basis for analyzing the prospects for employment and unemployment, but in the long-term, the supply aspects of the model must be introduced. If this is done, account would need to be taken of differing substitution rates among various categories of labor, i.e, non-linear relationships that reflect changes over time.

Feldstein touches on another aspect of the difficulties he faced in this investigation when he notes that his policy simulations describe an economy ". . . that is behaving in a very different context from anything that has actually been observed during the period that was used to estimate the model." In effect he is saying, even though the model is not based on any data for periods in which the unemployment rate for married men remained below 2 percent for any extended length of time, the model can nevertheless be used to project, not only what the overall unemployment rate will be under such conditions, but what the rates for various sub-categories of the labor force will be as well. To treat simulations of this nature ". . . more as illustrative of the general impact of policy than as precise forecasts" is to ask considerably more of the model than seems to me justifiable.

It may well be that further revisions of the DRI model will make it possible for Feldstein to get at some of these questions, but I think quite different modes of attack could well prove more effective. One possibility would be to examine inter-sector shifts in output and employment with a view to estimating employment elasticities of different categories of labor. Another would be to study comparative employment-unemployment records of different labor force groups in various high-employment periods, i.e., the "genuinely" full-employment World War II period, the briefer, less complete, high-employment periods of the 1950's and 1960's, and the still briefer, even more incomplete, expansion of the early 1970's. Still another would be to test certain hypotheses about the labor market status of particular groups against the longitudinal employment data now becoming available to researchers. Compared to these more discriminating types of analysis, I doubt if a macro-forecasting model, no matter what its form, is going to throw much light on the kinds of long-term, intersectoral questions to which the Feldstein report is addressed.

II

The section of the report dealing with the structure of unemployment is replete with imaginative insights and interesting comparisons. The statistical estimates of unemployment rates for major demographic groups under conditions of extreme labor market tightness between 1954 and 1972 contain a number of useful leads for further investigation. I have some questions, however, about Feldstein's interpretations of his preliminary results. As already noted, linear equations of the sort used in this part of the report may be quite inappropriate when there are low rates of unemployment sustained over long periods, despite Feldstein's comment that ". . . preliminary examination of this issue does not suggest important nonlinearities." The data he is using in this section largely reflect cyclical variations in demand

but the results of this analysis are set forth in long-term projection terms. For reasons cited above, this is a highly questionable procedure.

One of the most puzzling aspects of this part of the discussion is Feldstein's interpretation of the large constant term in the teenage unemployment equations in table 6. He concludes, for example, that equation 2.1 shows that even if the mature male rate was depressed to 1.5 percent, ". . . the equation implies that the male teenage rate would be 11.4 percent." But at a later point (equation 2.9) he observes that, when allowance is made for the relatively more rapid increase in the proportion of teenagers in the total population, the constant term falls dramatically and, when allowance is made for this demographic trend, there is ". . . a substantial increase in the implied responsiveness of the teenage rate to cyclical conditions." Feldstein nonetheless concludes that, given the current demographic structure, the male teenage unemployment rate would still remain unacceptably high even under very tight market conditions. Could it not equally well be argued that, as the teenage bulge moves upward into the 20- and 30-year categories, the male teenage unemployment rate could be expected to be more responsive to aggregate demand changes? Simply to ask this question illustrates again the danger of treating changing ratios as constant ratios in long term projections.

The general explanation for the persistently high unemployment among teenage and other jobless-prone groups which Feldstein develops is that the only jobs open to them are so menial they are hardly worth taking, much less keeping for any length of time. He asserts at several points in the report that the problem is not inadequate overall demand but the unattractiveness of the jobs available to these groups. There is a certain plausibility to this "dual labor market" view of employment conditions but there is nothing in the figures Professor Feldstein adduces, or indeed in the general literature, which justifies his quite categorical generalizations on the matter.

Feldstein's treatment of the counter position, that the improvements in the quality of job opportunities associated with tightening labor markets will sooner or later even reach down to the most seriously disadvantaged workers, is a puzzling one. In support of his criticisms of this position he cites evidence to the effect that labor force participation rates for nonwhite male adults have declined during periods of tightening labor markets. According to table 6, however, which appears in the first section of the report, the unemployment rate for nonwhite men is shown to be ". . . very much more sensitive to aggregate demand than other groups in the labor force." Presumably, he would argue that this contrasting behavior refers to two different categories of workers, those with relatively weak labor force attachments in the first case and those with relatively strong labor force attachments in the second. My own view is that the two sets of data probably refer to different time periods rather than different categories of workers, the former primarily reflecting long-term trend influences and the latter, short-term cyclical influences. In any event, this is hardly convincing evidence that long periods of extreme market tightness will not reduce the level of voluntary unemployment among low-skill adult workers.

I found much of Feldstein's discussion of the structure of unemployment, especially his comparisons between particular groups and between the U.S. and U.K., illuminating and provocative. I do not agree that the evidence he presents yields the conclusions he derives from it, but he raises questions which deserve careful investigation.

III

The policy review section of the report provides an excellent critique of various suggestions, other than macro-demand expansion, for reducing unemployment among these "hard-to-employ" groups. Feldstein discusses four approaches, with differing emphases depending on the group involved: improved manpower training, wage subsidies, public job creation programs and redesign of current disincentives to work. Despite his earlier theme that the main problem is the unattractiveness of the jobs available to these groups, Feldstein puts heavy stress in this section of his report on closing off the various lures to idleness, singling out the work-disincentive effects of the unemployment compensation system for special attack. True, he couples these criticisms with some general references to the need for more and better career opportunities but the policy analysis section of the report centers almost entirely on ways to induce hard-to-employ groups to take whatever jobs may be available. Admittedly, some of Feldstein's proposals in this connection would make it harder for employers to fill menial, dead-end jobs but most of his proposals would have precisely the opposite effect.

As to Feldstein's specific suggestions for removing work disincentives, I wonder how effective they would be. His analysis of the high marginal tax rates to which individuals receiving unempolyment compensation benefits are subject if they return promptly to work is logically convincing, but I question how much a worker's decision to take a job one month rather than another would be affected by making his unemployment benefits taxable. His proposals for reducing the minimum wage barrier to better job opportunities for disadvantaged young workers by a system of Youth Employment Scholarships and/or company training subsidies to be known as Employee Investment Tax Credits, seem to me to be more promising. The latter two proposals have the advantage of limiting the employee or employer subsidies to jobs providing training opportunities, while the proposal to make unemployment benefits taxable does not. As Feldstein emphasizes at several points in his report, the important need is to enlist public support in raising the quality of jobs and careers open to teenage and other disadvantaged workers. Merely increasing the cost to workers of not working by taxing unemployment benefits, or decreasing the cost to employers of hiring low-productivity employees by reducing the minimum wage of such workers, will not get at this fundamental need. Such proposals would carry quite a different impact, however, if they contained job-enhancement and career-improvement requirements.

As with the other parts of the report, the section on policy calls for reexamination and elaboration. What is needed is a set of recommendations which will bring genuine career-opening jobs in the most effective manner possible to disadvantaged unemployed and employed workers at the lowest net cost to the public. Professor Feldstein's policy analysis falls considerably short of this goal but it marks an important step in this direction.

REPLY BY MARTIN S. FELDSTEIN

The five discussants invited by the Joint Economic Committee provide wide-ranging and interesting comments on my paper. I am pleased that in spite of the diversity of views within the group there is general acceptance of my analysis of the nature of unemployment and substantial support for the policies that I suggest. Of course, there are also important disagreements. Not surprisingly, some of the discussants support my recommendations without fully accepting my diagnosis of the problem. Similarly, some of the discussants concur with my conclusions about the nature of unemployment without accepting all of the statistical evidence that I present to support those conclusions.

In this brief reply I will not attempt to deal with all of the questions raised by the discussants. Some of the points that they make involve errors of fact or analysis that would require longer answers than are appropriate in this note. Moreover, although several of the discussants pressed for more details about the structure of unemployment and about my own proposals, I will not take the opportunity of this reply to present new analysis or to expand the description of the policy proposals.

My purpose here is to clarify some points of genuine misunderstanding and to reply to some criticisms that I find to be without any basis. For simplicity, these remarks are divided into the same sections as the original paper.

1. The Limited Efficacy of Increasing Demand

The purpose of the first two sections of my paper was to show that expansionary macroeconomic policy cannot be relied upon to achieve the desired reduction in unemployment. None of the discussants disagreed with this fundamental conclusion. This stands in sharp contrast to the more traditional emphasis on fiscal and monetary policy that was stressed in the hearings and in most of the nonprofessional press.

I have no basic quarrel with Holt and Gordon who explicitly accept this conclusion but caution that the use of conditional econometric forecasts to support this view is fraught with dangers. In commissioning my study as a background paper for the hearings, the committee specifically requested that I prepare econometric forecasts of the type that I reported. I was careful to emphasize that, in addition to the usual "shortcomings of an historically estimated model," the current forecasts involve "descriptions of an economy that is behaving in a very different context from anything that has been observed during the period that was used to estimate the model." I warned that: "The results must therefore be regarded more as illustrative of the general impact of policy than as precise forecasts." I believe that, despite their limitations, the simulations are useful in illustrating the limited efficacy of increasing demand.

Harrison and Pierson express concern that the forecasts are based on the assumption that the behavior of the labor market that has been observed until now will continue to prevail in the future. They imply correctly that changes in the behavior of the labor market would alter the future response of unemployment to macroeconomic policy. However, the purpose of the simulations was to show that *unless the microeconomic behavior of the labor market is changed* macroeconomic policy can have little effect. The econometric forecasts are not intended to show what *might be* but what *would be* if only macroeconomic policy were used. The pessimistic conclusion that emerges is the very reason for the policies to alter the behavior of the labor market that I develop in subsequent sections of the paper.

2. The Structure of Unemployment

To support the conclusion that macroeconomic policy cannot be relied on to achieve a substantial reduction in unemployment, I discussed three important features of the current labor market: (1) the short duration of unemployment and high turnover of jobs; (2) the great differences in unemployment experience among demographic groups; and (3) the fact that job loss accounts for less than half of total unemployment.

I presented evidence to show that long-term unemployment is extremely rare and that almost every unemployed person finds a job in a relatively short time. Although this is not widely appreciated, it is now generally accepted by economists who study unemployment. Professor Gordon writes:

> Professor Feldstein's conclusion is that the "current structure of unemployment in the American economy is not compatible with the traditional view of a hard core of unemployed who are unable to find jobs." On the contrary, the duration of unemployment is typically brief. The trouble is primarily high quit rates and frequent job changes. * * * With all this one can only agree.

Only Mr. Kaitz appears to disagree with my conclusions about the short duration of unemployment. Moreover, his criticism seems to be contradicted by his own published research. In his comment, Kaitz writes:

> One example of Feldstein's perspective on unemployment is given in the following quotation: "A more accurate description is an active labor market in which almost everyone who is out of work can find his usual type of job in a relatively short time * * *." This kind of exaggerated statement occurs elsewhere in the report * * *. It ignores the segmentation of local job markets * * *.

At a later point, Kaitz quotes my statement, "Almost every unemployed person can now find a job in a very short time." and then asks rhetorically, "Is it necessary to take issue with this statement, or should one rely on the good sense of the reader to reject it out of hand?"

I hope that the evidence that I presented and Professor Gordon's comment quoted above will restrain the reader from rejecting my

important conclusion in favor of the "traditional view of a hard core of unemployed who are unable to find jobs." Moreover, Kaitz provides some detailed statistics in his comment that adds further support for the conclusion that the duration of unemployment is generally very short. In my paper, I cited the usual official statistics on the distribution of durations of unemployment; i.e., the number of weeks that *currently unemployed* persons have been unemployed. In an interesting and valuable article, Kaitz derived an alternative measure: the length of *completed* spells of unemployment. The evidence on completed spells implies even shorter average durations of unemployment than the usual published statistics. As Kaitz notes, "while half of the unemployed have been unemployed less than 5 weeks up to the reference week, the completed spell distribution shows that almost three-fourths of completed spells are less than 5 weeks in duration." After stating that only one-fourth of all unemployment spells last more than 5 weeks, how can Kaitz reject the conclusion that "Almost every unemployed person can now find a job in a very short time?"[1]

The analysis of differences in unemployment experience among demographic groups showed substantial variation in the response of unemployment rates and implied that even an extremely tight labor market would leave some groups with high unemployment rates. Although this conclusion was not challenged, several of the discussants objected to the use of simple linear relations of the type used in equations 2.1 through 2.8. Subsequent work with more general nonlinear equations has now confirmed these conclusions. The new equations also imply that even if the unemployment rate for mature men were only 1.5 percent, the unemployment rates for teenagers would be extremely high. Adjustments for the changing demographic structure of the labor force also leave the conclusion unaltered.[2]

Gordon and Pierson raised the question of whether the differences in the sensitivity of unemployment among demographic groups would continue to be observed in cyclical and secular movements in unemployment were distinguished. A recent paper by Kosters and Welch provides evidence that this is so.[3]

It is important to reiterate that although the equations do appear to capture correctly the general characteristic that unemployment rates for some groups will remain high even in a tight labor market, the simple form of the equations may be misleading in some details. I showed, for example, that allowing for the changing age structure of the labor force substantially raised the estimated responsiveness of male teenagers but left essentially unchanged their predicted unem-

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[1] Note that although a spell of unemployment can be terminated by dropping out of the labor force, among men aged 25–59 who were not in the labor force in 1972, less than 3 percent were not in the labor force because they thought that they could not get a job. The percentage is even lower in other age and sex groups.

[2] There is some confusion in the comments about the interpretation of equation 2.9. In particular, the negative constant term raised some unnecessary doubts. With the demographic variable in the equation, the constant term cannot be considered in isolation. If the constant term is combined with the demographic variable evaluated at the 1972 value of 0.1083, the combined "constant term" is 8.24. Moreover, the equation predicts almost exactly the same male teenage unemployment rate with RUM25+ = 1.5 as the simpler equation 2.1 (11.6 percent instead of 11.4 percent.)

[3] M. Kosters and F. Welch, "The Effect of Minimum Wages on the Distribution of Changes in Aggregate Employment," *American Economic Review*, June 1972.

ployment rate when the rate for mature men was lowered to 1.5 percent. Although a similar analysis was not presented for female teenagers, Gordon's evidence of a shift between the 1950's and 1960's and of the experience of this group during four recessions suggests that a similar result would be obtained. More specifically, during the four contractions cited by Gordon, the proportional rise in female teenage unemployment rates was substantially less than the corresponding change for adult men: an average of 32 percent for teenage females and 64 percent for adult males. Moreover, throughout the 1960's the annual unemployment rate for teenage females never fell below 13.5 percent.

3. Unemployment Among Young Workers

Any discussion involving the minimum wage seems bound to invoke strong reactions and some misunderstanding. I argued that the unemployment among young workers could be reduced if their jobs could be changed to offer more on-the-job training and opportunities for advancement. I explained that our current minimum wage law prevents many young people from accepting jobs with low pay but valuable experience. Those who come to the labor market with substantial skills and education need not be affected by the minimum wage. They are productive enough to permit employers to pay at least the minimum wage while also providing further training and opportunities for advancement. But for the young worker who has few skills and below average education, producing enough to earn the minimum wage is incompatible with the opportunity for adequate on-the-job learning.

I was careful to note that lowering the minimum wage for young workers might be useful but it would not be sufficient. Some young workers would not be able to afford to take a job with adequate training and experience. Others who could both afford and benefit from a low wage job might not take the opportunity. I therefore suggested that Youth Employment Scholarships be used to supplement earnings and to allow young workers to "buy" better on-the-job training. If political realities preclude a minimum wage differential for youth, the Youth Employment Scholarship could by itself provide the opportunity for buying on-the-job training.

Gordon and Holt support the proposed youth employment scholarship and Pierson describes it as "promising". Kaitz rejects the idea but offers no facts or analysis to support his view. Instead he writes:

> During the time of Charles Dickens (and much later also) young people have had to pay to take jobs in firms where there was some prospect of a future. In recent years, I suspect that the reverse has often been true; that shortages of workers in the late 1960's led to the hiring of many young people whose marginal product was less than their wage.

Even if this was so for some young workers, it does not in any way contradict the fact that many young persons with few skills and little education were unable to obtain employment with valuable on-the-job training. Kaitz also comments that:

> I expect the more likely situation both in the past and at present is that these low wage jobs would lead to nothing much in career development.

This again ignores my entire analysis of the minimum wage and of its effect on on-the-job training. Young workers who now earn the lowest wages are generally those with the lowest skills. Because of the minimum wage, they are denied the opportunity to buy on-the-job training. It is not surprising that the past experience of this group has been that low wage jobs are also dead end jobs. Kaitz apparently does not understand that the basic purpose of the Youth Employment Scholarship is to break the historical pattern by permitting the disadvantaged young worker to buy on-the-job training without suffering financial hardship during the period of training.

Harrison rejects the Youth Employment Scholarship because he believes that firms that could offer valuable job experience would not respond to financial incentives: "Feldstein's assumption that primary firms would hire teenages if it became profitable for them to do so is questionable." Of course anything could happen if firms were really not interested in making profits and were willing to forgo profits in order to indulge an irrational prejudice against young workers. I prefer to believe that firms can be induced by wage subsidies to hire young workers into jobs with valuable experience and promotion possibilities.[4] The experience of other countries supports this belief. In several countries where a minimum wage law does not provide an effective constraint (1) earnings rise rapidly during the first few years of employment, (2) there is substantial on-the-job training, and (3) youth unemployment rates are relatively low.[5]

Harrison and Kaitz also suggest that the Youth Employment Scholarship would not be effective because of labor market discrimination against young blacks. It is important to remember that 78 percent of unemployed teenagers in 1972 were white. Although the unemployment rate was higher among nonwhites, the unemployment rate for white teenagers was 14.2 percent. Even if labor market discrimination against young blacks were so strong that they could not be helped by financial incentives, the Youth Employment Scholarship would still serve a very important social and economic function. Moreover, I do not believe that irrational discrimination would make employers insensitive to the inducements of the Youth Employment Scholarship.[6] On the contrary, because low skills and little education are most common among minority youth, this group could benefit most from a program of employment subsidies for young workers.

One final issue in section III deserves attention. In appraising the official estimates of the youth unemployment rate, I described the results of a national survey conducted under the direction of Professor Herbert Parnes for the Department of Labor. The survey, conducted by the Bureau of the Census, interviewed young men about their employment status and future plans. In contrast, the official unemployment rates obtained by the current population survey are

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[4] I discuss in the text why the failure of previous wage subsidy training programs such as J.O.B.S. is not relevant to the current proposal.

[5] See Bureau of Labor Statistics, *Youth Unemployment and Minimum Wages*, Bulletin 1657, Washington, 1970, and Peter Doeringer, "Low Pay, Labor Market Dualism, and Industrial Relations Systems," Harvard Institute of Economic Research Discussion Paper, 1973.

[6] See Richard Freeman, "Changes in the Labor Market for Black Americans, 1948–72", *Brookings Papers on Economic Activity*, 1973, for evidence that traditional patterns of labor market discrimination are rapidly diminishing.

based on interviews with only one person in each household, usually the mother of the young man. The Parnes survey found much lower rates for nonstudents than the official estimates. I cited this evidence to indicate the complexity and uncertainty involved in analyzing the official statistics. I explained that even if the official figures are replaced by the Parnes estimates the general conclusion remains that youth unemployment rates are extremely and unnecessarily high. Kaitz notes that the Parnes estimates reflect a coding error that makes the teenage unemployment rate lower than it should be. The error was to treat those looking for their first jobs as not in the labor force and therefore not unemployed. Although new labor force entrants are a large fraction of unemployed youth during the summer months, the comparison of CPS and Parnes figures in the report refers to October when new entrants are much less important. With 5,225 young persons in the sample, the coding error relates to only 97 individuals. Unfortunately, at this time the corrected data has not been fully reanalyzed. A comparison of the available aggregate figures shows that a very substantial difference remains even after the correction is made. For all men less than 25 years old, including both students and nonstudents, the published Parnes estimates indicate an unemployment rate of 7.5 percent, higher than the CPS rate of 5.9 percent for the same week.[1] Adding the 97 miscoded unemployed to the unemployed count by Parnes raises the Parnes unemployment rate to 9.4 percent. It is clear that the measurement of unemployment among young persons involves many severe difficulties. The possibility of substantial error in the CPS figures therefore remains and the reasons for the different estimates require further study.

4. Four Sources of Unemployment Among Adults

I am afraid that my discussion of public employment was not clear. In contrast to the impression that I gave to at least two of the discussants, I have no objection to public employment or public programs as such. In advocating the use of wage subsidies for those whose low skills or handicaps prevent employment at the minimum wage, I intended that these subsidies could be used in either public or private employment. My criticisms were directed at the creation of public jobs whose primary purpose is to create employment rather than useful services.

Is the proposal for "unproductive public employment" really a straw man? I think not. In *Setting National Priorities: The 1972 Budget*, Charles Schultze and his collaborators provide a very valuable analysis of alternative approaches to job creation. They review the history of job creation in the depression, contrasting the strategies of the smaller Works Progress Administration and the larger Public Works Administration (p. 195):

> The two agencies had different approaches to the problem (of job creation). The WPA emphasized the creation of jobs rather than the usefulness of the project.

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[1] Note that for all young men the Parnes unemployment rate exceeds the CPS rate while the opposite is true for those who are not students.

When they turn to the current choice between public employment and subsidies to private employers, they emphasize that (p. 200):[8]

> The advantage of public employment is that the Government can give primary consideration to creating a job and secondary consideration to turning out a useful product, as was done by the WPA.

The problem of the 1930's was not to find work for those with few skills or specific handicaps. Rather it was to increase aggregate demand for goods and services the production of which would reemploy the nearly 25 percent of the labor force who were without work. The WPA played a significant role in achieving economic recovery because, like other forms of deficit spending, it provided a stimulus to aggregate demand and a basis for the Keynesian multiplier process.

The purpose of job creation in the 1970's is very different. The current problem is to find work for the 1 or 2 percent of the labor force, who, because of low skills, would otherwise be permanently unemployed. Productive jobs for this group should be the aim of our current policy.

Let me reiterate that these jobs could be either public or private. The wage subsidy vouchers and the integration of the minimum wage with income maintenance are equally applicable to private and public employment.

5. Improving the Incentive Effects of Unemployment Compensation

Section V of the report explains why our current system of unemployment compensation is likely to increase nearly all sources of adult unemployment: seasonal and cyclical variations in employment, weak labor force attachment, and unnecessarily long durations of unemployment. For those who are already unemployed, it greatly reduces and often almost eliminates the cost of increasing the period of unemployment. More generally, for all types of unsteady work—seasonal, cyclical and casual—it raises the net wage to the employee relative to the cost to the employer. This encourages employers and employees to organize production in ways that increase the level of unemployment by making the seasonal and cyclical variation in unemployment too large and by making casual and temporary jobs too common.

I suggest three ways to reduce the current bad disincentives: (1) including unemployment compensation benefits in taxable income; (2) removing the lower and upper limits on the experience rated employer tax;[9] and (3) shifting part of the experience rated contributions from the firm to the individual.

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[8] The analysis by Schultze *et al.* does not favor either public or private employment but presents the cases for and against each approach.

[9] Although Kaitz is correct that States have recently been increasing the tax base and maximum tax rate, the current levels are still far short of full experience rating. The tax base in 1939 was $3,000; in 1972, only five States exceeded $4,200. The maximum tax rate under the least favorable schedules averages approximately 3.7 percent; under the most favorable schedules, the average is only about 2.7 percent.

The discussants are again divided. Holt notes that he agrees with many of the recommendations. Harrison supports the proposal because he believes in the "imposition of full cost responsibility".[10] Pierson finds that the analysis of the high "marginal tax rates" implied by unemployment compensation is "logically convincing" but questions the effect that this has on duration. Kaitz also agrees that the disincentive effects are "real" but believes that their effect on unemployment is exaggerated. He nevertheless agrees that it may be that unemployment benefits should be part of taxable income.

Gordon disagrees strongly with the proposals to reform unemployment compensation and, on some of the issues, is joined by Kaitz. Three basic criticisms of the analysis in the report can be distinguished: (1) the coverage of unemployment compensation is exaggerated; (2) Massachusetts is so atypical that the examples of disincentive are misleading; and (3) the estimate of 1.25 percent additional unemployment due to our current system of unemployment compensation is therefore too high. I find none of these criticisms to be convincing. I will examine each in turn.

Gordon claims that the report "badly exaggerates the extent to which those counted as unemployed in the official statistics are covered by unemployment compensation, particularly in prosperous years." I do not believe that I made any exaggerated estimates and Gordon provides no figures of mine to support his assertion. He does offer some figures of his own to show that many unemployed receive no unemployment compensation but these figures are themselves misleading. More specifically, Gordon notes that in 1971 the number of insured unemployed under State programs averaged only 43 percent of those counted as unemployed in the current population survey. However, unemployment compensation is not limited to *State* programs. Federal employees, veterans, railroad workers and others receive benefits without being counted under *State* programs. In 1971, insured unemployment under *all* programs was 52 percent of the official number of unemployed. Gordon's conclusion that, "In short, considerably less than half the unemployed, even in a year of relatively high unemployment like 1971, are covered by unemployment compensation," must be rejected.

Moreover, if attention is limited to unemployed adults the extent of unemployment compensation is very much greater. In 1971, 82.7 percent of the insured unemployed under State programs were 25 years old or over. In contrast, only 56.6 percent of all the unemployed were in this age group. By applying the 82.7 percent to all the insured unemployed (not just those under State programs), we can estimate that 75.9 percent of all the unemployed over age 24 were insured.

Although unemployment compensation is intended primarily for job losers, under certain conditions those who have voluntarily left their previous employment or who are reentering the labor force are also eligible. It is interesting that in 1971 the number of insured unemployed under all programs (2,593,000) actually exceeded the total number of unemployed persons who were classified as job losers (2,313,000).

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[10] Harrison appears to misunderstand the method that I propose for individual experience rating; I would have the employee's *contribution* and not his prospective *benefits* depend on past experience.

These figures leave no doubt that coverage of unemployment compensation is extensive and that among adults who are not new entrants or reentrants it is nearly universal. Since the disincentive effects that I discussed in section V dealt with this group, I cannot accept Gordon's claim that I exaggerate the extent of coverage.

Both Gordon and Kaitz assert that the examples exaggerate the magnitude of the disincentive effect for those who are unemployed and receiving compensation. They base this assertion on the fact that Masachusetts was used for the examples and that Massachusetts benefits are said to be relatively generous. Although the particular rules differ among States, almost all States provide approximately 50 percent of previous earnings up to some maximum weekly benefit. The maximum weekly benefit varies among the States; the 1972 Massachusetts maximum of $74 is above the national average of $65. But the absolute maximum is less relevant than the relation between the level of unemployment compensation in the State and the level of wages in the State. States with high levels of unempolyment benefits are generally also those with high wage levels. As Gordon notes, the ratio of average weekly benefit to average weekly wage in Massachusetts was 0.372, or less than 5 percent above the national average of 0.357.[11] Thus when the benefit level is related to local wages, Massachusetts does not appear unusually generous.

Gordon and Kaitz also imply that, since Massachusetts is one of only 11 States that pay dependents' allowances, the example in the text exaggerates the extent to which unemployment compensation reduces the loss of income from being unemployed. The provision of unemployment benefits is actually more widespread than is suggested by reference to only 11 States. In 1971, these States contained 33 percent of the insured unemployed. Examples of the effects of unemployment compensation with dependents' allowances are therefore of substantial interest. But even if the dependents' allowances are excluded, the combination of untaxed unemployed compensation and the relatively high marginal taxes on wages imply that unemployment compensation replaces a very high fraction of lost net income. Consider the example in the text: a man who earns $500 per month and whose wife earns $350 per month: If he is unemployed for 1 month his taxes fall by $134. He therefore loses $366 of net income. Unemployment compensation pays $250 or 68 percent of his lost net wages.[12] Viewed somewhat differently, return to work yields only an additional $116

[11] It is important to reiterate that this ratio must not be interpreted as a measure of the extent to which unemployment compensation replaces lost earnings. This is a common fallacy. Since lower wage workers are more likely to become unemployed than higher wage workers, this ratio compares the benefits of a low wage group with the earnings of the entire population. Moreover, the average wage is gross of tax while the unemployment benefits are not taxed. As the examples in the report and in the next paragraph of this reply indicate, unemployment compensation typically replaces more than half and often more than two-thirds of earnings. For workers with low wages, especially in two earner families, the replacement can even be much greater.

[12] As I noted in the report, this ignores the waiting period of 1 to 5 days. The existence of a waiting period may however increase unemployment. In some occupations (e.g., truck drivers, construction workers, general laborers, painters, etc.) there are jobs that may last only a few days. Those who are already collecting unemployment compensation will be reluctant to take work that is expected to last only a few days and then to result in a new waiting period.

or 23 percent of gross wages; the marginal "tax" is 77 percent. Since the example assumes no dependents' allowances, a 50 percent benefit rule and a relatively low weekly dollar benefit, the 77 percent can be regarded as a conservative estimate. With dependents' allowances for two children, this rises to 87 percent. The percentage is even greater for someone whose marginal rate of Federal income tax is higher, i.e., whose earnings are higher (up to the State maximum), or whose wife has higher earnings or who is single. [11]

On the basis of my analysis of the available evidence, I estimated that the current unemployment disincentives increased the 1972 unemployment rate by at least 1.25 percent. Because Gordon believed that I exaggerated the extent of coverage and the magnitude of the disincentive, he concluded that the 1.25 percent was an overestimate. Now that the facts on the extent of coverage and the replacement of income have been examined, the estimate of 1.25 percent should seem more likely.

First, the report explained how our system of unemployment compensation increases the responsiveness of unemployment to changes in output. If our cyclical responsiveness were reduced to that of Britain, the cyclical range of unemployment rates in the 1960's would have been cut by 1.3 percentage points. If a reform of unemployment compensation achieved one-third of this, the unemployment rate would fall by more than 0.4 percent.

Second, unemployment compensation also exacerbates seasonal unemployment. If seasonal unemployment could be avoided completely, the average unemployment rate would fall by more that 0.75 percent. However, as I was careful to note, some seasonal unemployment is technologically desirable. Gordon also notes that about one-fourth of the seasonal unemployment reflects new labor force entrants who are unaffected by unemployment compensation. Nevertheless, unemployment compensation raises the rate of seasonal unemployment in an undersirable way. If one-third of unemployment were eliminated by reforming unemployment compensation, an additional 0.25 percent would be cut from the overall rate of unemployment.

Third, the 1971 unemployment rate of 5.9 percent was associated with an average duration of 11.4 weeks. A reduction of 2 weeks would therefore lower the unemployment rate by 1 percent (to 4.9). Since the insured unemployed are 52 percent of all unemployed, a 4-week reduction in their unemployment durations would lower overall unemployment by 1 percent. Similarly, a 3-week reduction would lower overall unemployment by 0.75 percent. Although comparable data on the unemployment durations of insured and uninsured workers is not available, the differences in the age distribution alone suggests that the average duration of insured unemployed is greater. A 3-week reduction probably represents less than a 25 percent fall in average duration. The very skewed distribution of durations (the median is only 5 weeks) implies that this could be achieved if a relatively small fraction of those now unemployed for several months found work much earlier.

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[11] The conclusion that very high rates of net income replacement are common in all States is supported by additional analysis completed since the original report was submitted. See my "Unemployment Compensation: Adverse Incentives and Distributional Anomalies," mimeographed, 1973.

These three contributions to a lower unemployment rate—0.40 percent from reduced cyclical responsiveness, 0.25 percent from less seasonal variation, and 0.75 percent from shorter durations—imply a fall in unemployment of 1.40 percent. These estimates are obviously crude but need not be regarded as biased in the direction of optimism. In addition, a change in unemployment compensation would reduce the relative number of casual jobs and of jobs with a high probability of termination. Unemployment compensation is a dominant factor in the economics of unemployment, and its reform could substantially lower the permanent rate of unemployment.

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